iBOOK G4 P.42
We test the mighty whitey.

PHOTOSHOP CS P.44
Our graphics gurus review its new features.

INDESIGN CS P.46
The verdict is in: The best gets better.

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FEB 2004

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Models

Land	**SCORPION**	4X4	Subwoofer	Gear Ratios: -0.5, 0.4, 0.65, 0.85, 1.1
Land	**AW-X**	20.0L	6 Airbags	AKA "GOLIATH." Chassis Dimensions: 27.2 x 10.2 x 5.6 ft
Land	**Liandri DH-85**	4x4	Air Conditioning	S-73 'SkyMine' anti-personnel and G87f anti-aircraft turret
Land	**LEVIATHAN**	Diesel	All Season Floor Mats	The family transport (seats 6). "Visit" the enemy base...
Air	**J-1280G Raptor**	Attack	4 gyroscopic cup-holders	Automatic quantum-phased disruption bolt launcher
Air	**MANTA**	Hovercraft	In-door Med-Kit	0-40 MPH: 1.6 seconds. Top speed: 115.2 MPH
Space	**FIGHTER H.**	Undisclosed	Trunk Organizer	18-way power seat fits one humanoid comfortably
Space	**FIGHTER SK.**	Undisclosed	Xenon Lights	For the most demanding alien warrior

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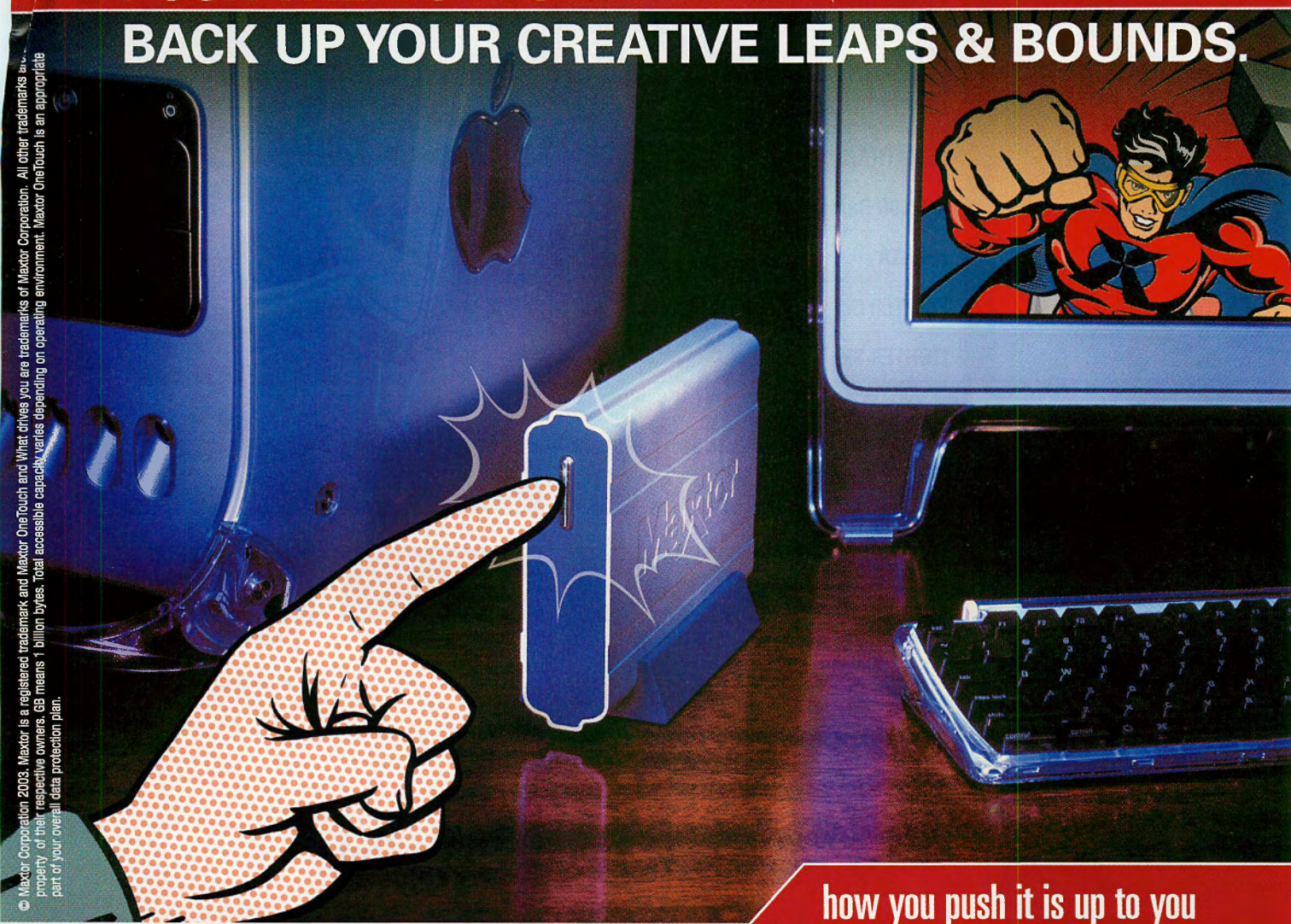

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a better machine. a better magazine.

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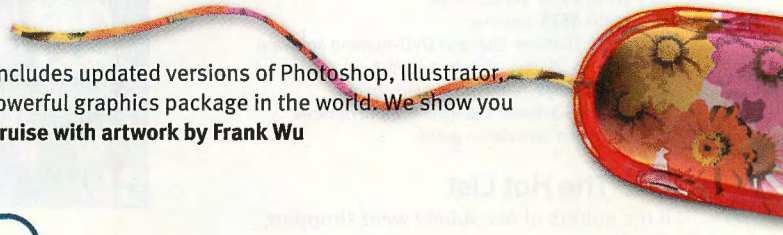

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every month

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62 The Hot List
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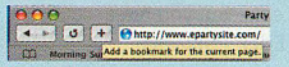
QUICK TIPS
FROM THIS MONTH'S ISSUE

→ MATCH YOUR COLORS
Photoshop CS's new Match Color feature lets you apply the color characteristics of one image to another—useful for creating special effects that involve applying the color scheme of one image to another. **See "Get Creative with Adobe Creative Suite," p29.**

→ ADD SAFARI BOOKMARKS FAST
Shift-Click the plus icon next to Safari's address bar to quickly add a bookmark to the Bookmarks menu. **From *Ask Us*, p64.**



→ DON'T TYPE IT, DROP IT
Typing out a directory's path name—especially if it's deeply seated in the belly of your Mac—takes too long. Instead, just drag and drop the directory into the Terminal window anytime you need to enter its path. **From "Troubleshoot with the Terminal," p68.**

→ PIMP SAFELY
If you've got a drill in hand, make sure you've got good eye-protection on your face (and no, your stylin' Gucci pimp shades won't cut it). Your gooey eyeballs are like magnets to flying debris. **From "Pimp Out Your G5," p66.**

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96 Shut Down
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The Belkin Media Reader performs the difficult one-handed iPod hoist.

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the disc

Because all the kicky arcade games on this month's Disc—Active Lancer, Pac the Man, Frozen Bubble, and more—will seriously degrade your productivity, we've also provided apps that'll increase it. For example, iPhoto Diet will make iPhoto snappier than you ever imagined, and Still Life will give you powers Ken Burns could only dream of.

Active Lancer *demo*

Attack, blast, and conquer alien intruders—either solo or with a buddy. What more could you want from a game?

iPhoto Diet

Do you know why iPhoto is running so slowly? It's choking on backups of your images. iPhoto Diet can trim the fat.

Still Life

This cool little app works much like iMovie's Ken Burns effect but gives you more control over the results.

onthe Disc

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Staff Video: Meet the New Guy

Say hello to Mark Rosenthal, *MacAddict*'s new art director, and learn his opinions on Mac OS X, moving from Quark to InDesign, Britney versus Christina, and what makes good design.

UPGRADE

If you don't receive the Disc with your copy of *MacAddict*, you might want to consider upgrading. Each monthly disc contains cool demos, useful shareware and freeware, and the inimitable *MacAddict* Staff Video. To get 12 issues of MacAddict that include this value-packed disc with your subscription (prorated if necessary) for just $1 more per issue, call 888-771-6222—the operator will take care of everything.

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Ever Been IIvx-ed?

On upgrades, price drops, and iPods

If you've ever shelled out a load of cash for a product or service, and then, after a painfully short time, learned of an upgrade or price drop that would have saved you a ton-o'-dough, you've been *IIvx-ed*—an indignity that Mac addicts of the day named for one of Apple's more regrettable Macs, the woeful IIvx, which was quickly replaced by the more-powerful and less-expensive Centris 610.

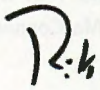
Two recent developments have prompted a flood of email from those of you who are feeling intensely IIvx-ed: the quick replacement of the original 1.8GHz Power Mac G5 with a dual-processor model for only a hundred bucks more, and the establishment by Apple of a $99 iPod battery-replacement service following a year or so of charging over $250 for essentially the same service. A righteously angry posse of *MacAddict* readers is feeling vexed, hexed, and IIvx-ed.

First, the 1.8GHz conundrum: At the risk of inspiring some of you to grab your torches and pitchforks, may I assert that upgrades and price-performance improvements are as inevitable as death and taxes, and that this particular one—although made more painful by the brief life of the single-processor 1.8GHz Power Mac G5—is no different from the rest? If you paid $2,399 for a single-processor 1.8GHz G5 in October, only to watch in agony as it was replaced by a $2,499 Dual 1.8GHz G5 in November, I feel your pain—but I (and you) have seen a squillion upgrades and price drops over the years. They come with the territory. At least you can rest assured that your single-processor 1.8GHz is still a damn fine machine—the dual-processor model's existence doesn't make it any less so. Enjoy it.

The iPod-battery situation is murkier. For far too long, Apple essentially treated the iPod as a disposable device. The battery in the original iPod was rated for a maximum of 500 recharging cycles, so a heavily used iPod could take a nosedive in 18 months or less. Many did. How would you feel if your digital camera, PDA, or even your Mac became unusable after a year-and-a-half? Not good. Apple is finally facing up to this fact and is belatedly offering a $99 battery-replacement service—a fair price. However, the company's earned righteous criticism for taking so long to institute this service and for squeezing $250-plus out of their most faithful fans—that is, the early adopters whose iPods went south before the $99 program began.

Planning any refunds to those folks, Steve?

Enjoy,



STAFF RANTS

Q: Have you ever bought something—and then wish you had waited?

Kris Fong PURCHASING PROCRASTINATOR
Have you ever bought something—and then wish you had waited? Almost. I ordered a Blue-and-White G3 from Apple and two days later they announced the G4. D'oh! Luckily, they ran out of B-and-Ws and offered to ship me a G4 for the same sale price. Score!

Cathy Lu LADY IN WAITING
Have you ever bought something—and then wish you had waited? I'm the opposite. I wait and wait and wait and never get what I want. I'm very deprived.

Peter Marshutz DISAPPOINTED CONSUMER
Have you ever bought something—and then wish you had waited? Three weeks after I bought my iPod, Apple came out with a new model: more storage for less money. I felt cheated. Apple should offer price adjustments—like Banana Republic—and refund the difference.

Niko Coucouvanis PROUD POWER MAC PAPA
Have you ever bought something—and then wish you had waited? I bought a 1.8GHz Power Mac G5, but I don't regret it. For my money, more RAM is a better investment than an extra processor.

Jenifer Morgan DARNED PURCHASER
Have you ever bought something—and then wish you had waited? Unfortunately, I buy things like non-exchangeable, on-sale, delicately embroidered crochet sweaters and then realize a week later that I'm a walking doily. In retrospect, I don't wish I'd wait to buy items such as this, but rather I wish I didn't buy them at all.

Narasu Rebbapragada EDITOR IN POWERBLISS
Have you ever bought something—and then wish you had waited? I should feel bitter about the 867MHz 12-inch PowerBook that I bought three months before Apple revved the line, but I'm not 'cause I would have missed out on three months of happiness, productivity, and "Gee, I love your computer" comments from strangers.

Mark Rosenthal XAVIER COOL-A-LOT
Have you ever bought something—and then wish you had waited? Does getting the wrong thing at the right time count? I decided to upgrade my vintage 1963 Wells-Packer sump pump to a three-amp extended flow model with the 7/8-inch, pressure-activated release port. That night we had a storm—the 7/8-incher flushed out that water fine, but blew out the polymer bushings on my water-sill flow locks!

Max PRESIDENT, GEORGE LAZENBY FAN CLUB
Have you ever bought something—and then wish you had waited? Right after I bought my latest tuxedo at the local thrift store, Timothy Dalton donated all his old James Bond tuxes after being dumped for Pierce Brosnan. I could have saved a bundle had I waited—Tim's my size.

comingsoon:march2004

Here's what our editors are preparing for the next issue of *MacAddict*.

We're all waiting with bated breath for **Apple's announcements** at January's Expo—and we'll bring you the scoop. Plus, we'll show you how to **throw a rockin' party** with your Mac. We'll explain how to **hide a Mac** on a Windows network, **add search capabilities** to your Web site, and **design custom Appearance themes.** We'll also check out the new **20-inch iMac, GoLive CS,** and **Illustrator CS,** and print out some honkin' huge images on HP's wide-format **Designjet 120.** Finally, we'll share five tips on **better 'Book battery life,** report the finalists in the **Independent Games Festival,** and explain how Macs are helping **orphaned puppies.**

Does even bigger mean even better?

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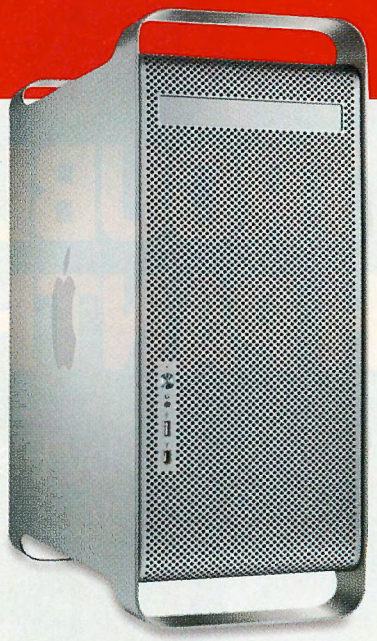

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[1]Free 512MB RAM (CDW 561452) after $169.77 mail-in rebate on PowerMac G5 systems. $40 installation fee required. Offer ends 2/29/04 or while supplies last. [2]Receive $20 Epson mail-in rebate when you purchase Epson Stylus C84 printer. Offer ends 02/28/03. [3]$79 off Epson Stylus printers with purchase of any Apple Desktop or Apple Notebook from Mac Warehouse between 10/1/03 and 02/28/03. Receive $79 back by mail. Apple, the Apple logo, Mac, Mac OS, Power Macintosh and PowerBook are registered trademarks of Apple Computer, Inc. AirPort, iBook, iMac, iMovie and Power Mac are trademarks of Apple Computer, Inc. PowerPC‰ and the PowerPC logo‰ are trademarks of International Business Machines Corporation, used under license there from. FireWire, is a registered trademark of Apple, Computer Corp. Customer understands that CDW is not the manufacturer of the products purchased by customer hereunder and the only warranties offered are those of the manufacturer, not CDW. All pricing is subject to change. CDW reserves the right to make adjustments to pricing, products and service offerings for reasons including, but not limited to, changing market conditions, product discontinuation, product unavailability, manufacturer price changes and errors in advertisements. All orders are subject to product availability. Therefore, CDW cannot guarantee that it will be able to fulfill customer's orders. The terms and conditions of sale are limited to those contained herein and on CDW's Web Site at CDW.com. Notice of objection to and rejection of any additional or different terms in any form delivered by customer is hereby given. © 2004 CDW Corporation

MA/MW 2/04

THE TROUBLE WITH PANTHER

Bumps Encountered by Early Adopters of Mac OS 10.3

by Narasu Rebbapragada

Those brave souls who install OS upgrades the instant they are released perform an important public service. The trials and tribulations of these early adopters remind more cautious folk to wait until the inevitable bugs get ironed out before updating. This fall's release of Mac OS 10.3, Panther, proved no exception to this pattern. Panther pioneers encountered some snafus in the upgrade's first days that the next wave of settlers can learn from and avoid.

FAULTY FIREWIRE 800 CONNECTIVITY

The first version of Panther was incompatible with FireWire 800 drives, a flaw that caused crashes, damaged files, and made data irrecoverable. The problem, according to Apple, was that Panther didn't jive with firmware version 1.02 of the Oxford 922 bridge chipset that powers most external FireWire 800 drives on the market.

"The drives will write zeros to some critical areas, like boot blocks," says John Oldham, the service tech at Macadam, a San Francisco-based Apple reseller and support outfit. "It's so serious that it's very difficult if not impossible to recover the drive," Oldham says, adding that some users have had limited success with Prosoft Engineering's Data Rescue 10 ($89, www.prosofteng.com), which in some cases has recovered data but not repaired the drive.

In response, Apple quickly released the Mac OS 10.3.1 update with improvements for security, FileVault (see facing page), printing, and WebDav, plus a few FireWire-800 tweaks. However, installing Apple's update alone isn't enough to fix your FireWire 800 woes, according to former vice president of product development for LaCie (www.lacie.com), Mike Mihalik.

"There's nothing in 10.3.1 that remedies the problem," says Mihalik, explaining that Apple's FireWire fix consists mainly of a reader warning and some I/O (input/output) patches. In addition to upgrading to Mac OS 10.3.1, owners of FireWire drives must download firmware updates from their drive manufacturer's Web site. Mihalik says that owners of LaCie FireWire 800 drives can safely download and install the firmware update from a Mac running Panther. Other drive makers, such as James Wiebe of WiebeTech (www.wiebetech.com), recommend installing firmware updates on a Mac running Jaguar before plugging into Panther.

Regardless, make sure not to start, restart, or shut down your Mac with the FireWire 800 drive plugged in—be sure

your Mac is running before you plug in the drive, and eject it before shutting down. Just how many FireWire 800 drives Panther has mauled is unclear, but Wiebe also reports that most problems have been limited to FireWire 800 drives attached to a slower Mac's FireWire 400 port via an adapter.

SAY NO TO FILEVAULT

Other early adopters are mourning dearly departed data after activating FileVault, which protects a Panther user's Home folder from prying eyes using government-grade AES-128 encryption. Generally FileVault's activities are invisible—that is, until something goes wrong.

FileVault's data-loss problems stem from the fact that FileVault creates an encrypted disk image of your entire Home directory. Lumping together all of these files and folders into one disk image is like putting all of your eggs in one basket: If a few files get corrupted, the whole disk image becomes corrupted. Other problems abound. First, FileVault asks to reclaim disk space upon sleep or shut down—when it does, just say no. If you let FileVault reclaim disk space, data corruption may result—in fact, some users have reported problems even if after *declining* the request to reclaim disk space. Second, if you forget the Login password *and* the Master password that FileVault asks you to create, your Home folder is gone forever. Third, some users have reported lost preference settings for various OS and iApps functions, which the 10.3.1 update is designed to fix. And finally, force-restarting your Mac while FileVault is reclaiming space during shut down can result in irrecoverable data loss.

FileVault also complicates backup. Dantz's Retrospect backup software, for example, performs incremental backups based on differences in the modification dates of source files and backed-up files. If you're logged in, Retrospect can analyze the dates on individual files and folders within your Home directory, and then back them up. If multiple users are logged in, all the changed items in their Home directories get backed up too. However, Retrospect can only back up the *entire* FileVault-encrypted disk images of users who aren't logged in, not the individual changed items within their Home directories. This can result in extremely long backup times.

No doubt Apple will remedy many of these issues in the near future, but we advise wearing kid gloves when handling Panther. As Spider-Man's Uncle Ben once said, "With great power comes great responsibility." The same holds true for Panther.—*NR*

TIPS ON UPGRADING TO PANTHER

From Tidbits (www.tidbits.com)

ARCHIVE AND INSTALL

Install Panther under the Archive and Install option, which creates a new clean system but maintains a copy of your old system so you can manually copy over troublesome Startup Items (see below).

DISABLE LOGIN ITEMS

Turn off Login Items in Jaguar (System Preferences › Login Items). They can cause your system to behave wonky upon startup in Panther. CE Software's QuicKeys X2 is one known culprit. Check developers Web sites for patches, and turn Login Items back on in Panther (System Preferences › Accounts › Startup Items).

CHECK YOUR VIDEO CARD

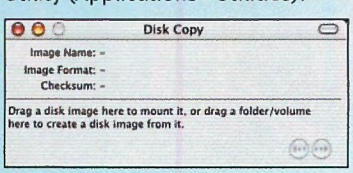
If you're using a third-party video card, take it out and replace it with the one your Mac came with while upgrading. A number of older cards—even some older ATI and nVidia cards—aren't supported in Panther without a patch. Look for one on your card manufacturer's Web site.

CHANGES

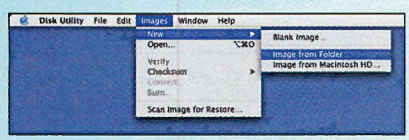
JAGUAR ITEMS FIND NEW HOMES IN PANTHER

DISK STUFF

Jaguar's Disk Copy (Applications › Utilities) is now part of Panther's Disk Utility (Applications › Utilities).



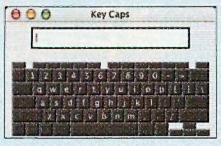
In Jaguar



In Panther

KEYBOARD STUFF

Jaguar's Key Caps (Applications › Utilities) is now called Keyboard Viewer. Go the International System Preference, click the Input Menu tab, and check the Keyboard Viewer check box. Now you can click the flag icon in the menubar to invoke this floating palette.



In Jaguar

In Panther

ACCOUNTS STUFF

Apple revamped the Accounts pane, which now combines the My Accounts and Accounts panes and adds Fast User Switching for switching graphically à la Keynote between Panther users.

In Jaguar

In Panther

DROOLWORTHY

Sexy Stuff We Can't Wait to Get Our Mitts On

← Mini Disk

Archos's ArcDisk ($249.95, www.archos.com) is smaller—though not thinner—than a floppy disk and weighs less than 3 ounces. This 20GB 1.8-inch USB 2.0 drive spins at 4,200 rpm. The folks at Archos say it's fully supported on Mac OS X but performs slightly slower on a Mac than it does on a Windows machine.—*NR*

AirPort → Photo Frame

Use AirPort to wirelessly send your digital photos to **Wallflower Systems' Wallflower Plus** digital picture frame ($699 to $799, www.wallflower-systems.com), which cycles through your images on its 14.1-inch LCD screen—just drag your pictures from iPhoto to the Wallflower folder on your desktop. You can also email photos to Wallflowers, and play short movies and MP3s, as it also has two built-in speakers.—*NR*

THE 411 ON MEMORY CARDS

CHOOSING THE BEST CARD FOR YOUR GADGETS

PDAs, MP3 players, and digital cameras accept an increasingly wide variety of memory card formats. We spoke to John Omvik, director of OEM and pro-product marketing for Lexar (www.lexarmedia.com) to get the pros, cons, uses, and future of nine main types of storage media. Here's a breakdown.—*NR*

	CompactFlash I	CompactFlash II	Secure Digital	SmartMedia	xD	Memory Stick/ Memory Stick Pro	MMC	Hitachi (formerly IBM) Microdrive
Pros	Widely supported, high capacity, and fast write speeds	Largest capacity of all flash-based media	Tiny—the size of a postage stamp	Very thin	Smaller and thicker offspring of SmartMedia	Swappable between Sony products	Thin, small, and fits into SD slots	Fastest, highest capacity media—on par with CompactFlash
Cons	Bulkier than other formats	Thicker form factor limits use to pro cameras	Lower capacity than CompactFlash	Fragile and on its way out	Limited in scope—primarily used in Olympus and Fuji products	Proprietary Sony format, and Pro Sticks don't fit in original Stick slots	Not widely used	Less durable than flash memory and fits only in CompactFlash Type II slots
Highest Capacity	2GB	4GB	512MB	128MB	512MB	256MB/1GB	128MB	4GB
Cost per Megabyte	Low	Low	Moderate/High	Moderate	High	Moderate	High	Low
Write Speed	Fast	Fast	Moderate	Slow	Moderate	Slow/Moderate	Slow	Fast
Best Used With	Cameras, PDAs, laptops, and MP3 players	Pro cameras that support it	Consumer point-and-shoot cameras, MP3 players, and PDAs	Legacy cameras and MP3 players	Olympus and Fuji cameras	Sony products and supported peripherals	Cell phones	Pro cameras
Future	CompactFlash will stay dominant in pro cameras because of its fast write speeds and large capacity.	This media is still best for pro digital, digital SLR, and potentially digital video cameras.	This format is growing in popularity.	SmartMedia is going the way of the dinosaur.	Although there are plans for 8GB xD cards, CompactFlash will get there first.	Memory Stick Pro cards are designed to go up to 32GB.	Nokia chose MMC for its camera phones because it's thinner than SD, so expect more support for MMC in the future.	High-capacity CompactFlash will make Microdrives a thing of the past for cameras.

NEWS OF THE MONTH

NO NEW PAGEMAKER OR FRAMEMAKER

In what we hope is simply a nod to the popularity of Adobe's InDesign desktop layout software, Adobe announced that it is discontinuing all future development of its mid-level PageMaker layout software and Mac development of its enterprise-level FrameMaker publishing software. Adobe says it will continue to sell and support current versions of these apps.

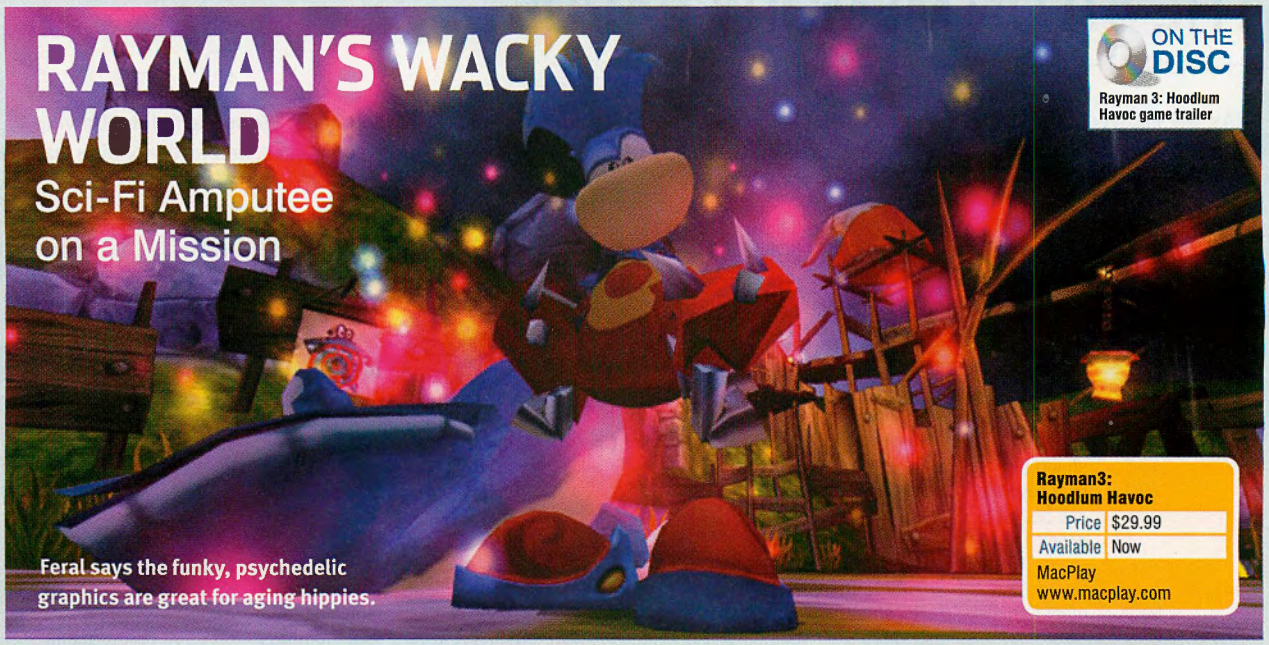
Adobe is offering current PageMaker users a $349 upgrade price for switching to InDesign CS PageMaker Edition, which combines InDesign CS with a PageMaker plug-in pack. The plug-ins will give InDesign many of the tools (such as Data Merge), formatting features (bullets and numbering), and keyboard shortcuts popular in PageMaker. Current InDesign CS users can purchase the PageMaker plug-in pack separately for $49.

CNN FORCES MAC VS. PC QUESTION

At a "Rock the Vote" debate in Boston, a CNN producer strong-armed a Brown University student into asking Democratic presidential candidates whether they used Macs or PCs. The student had wanted to ask a more general question about technology in government, but the producer preferred the lighter tone of the question the student was requested to ask.

RAYMAN'S WACKY WORLD

Sci-Fi Amputee on a Mission



ON THE DISC
Rayman 3: Hoodlum Havoc game trailer

Feral says the funky, psychedelic graphics are great for aging hippies.

Rayman3: Hoodlum Havoc	
Price	$29.99
Available	Now

MacPlay
www.macplay.com

Since 1995, the console world has enjoyed the Rayman series—a platform-jumper like Mario but with fighting and shooting. Rayman, sans legs and arms, helps his friend Globox fight the dreaded Hoodlum army, which is bent on world domination. Rayman collects weapons such as guided missiles and door-breaking knuckle-gloves, and power-up costumes to overcome obstacles such as lowering platforms. John Leguizamo (Ice Age) lends his voice to Globox and Billy West (of Ren and Stimpy and Bugs Bunny fame) speaks for Murfy, the tough-guy fly.—*Matt Osborn*

THE GOOD, THE BAD, AND THE UGLY

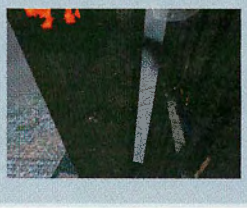
Unreal Tournament 2003 Mods

THE GOOD Red Orchestra
www.unrealwarfarex.com/redorchestra

This multiplayer online mod puts you on the Eastern Front of WWII, where the Soviet Red Army battles the Nazis from Kiev to Stalingrad. This mod is very Mac friendly and the development team has big plans for UT2004—think vehicles.

THE BAD Infection
www.planetunreal.com/infection
By bad, we mean badass. In this single-player horror mod, you're in a small town that is infested with mutated zombies and getting pulverized by meteors. To play, trick UT2003 by selecting Host Multiplayer to play single-player.

THE UGLY 9-11 Survivor
www.kinematic.org



Be warned: This mod crunches through every known threshold of bad taste—players find themselves trapped on random floors of the World Trade Center and have to escape before the towers fall.—*MO*

OLD SCHOOL

Activision Bundles 80s Arcade Favorites

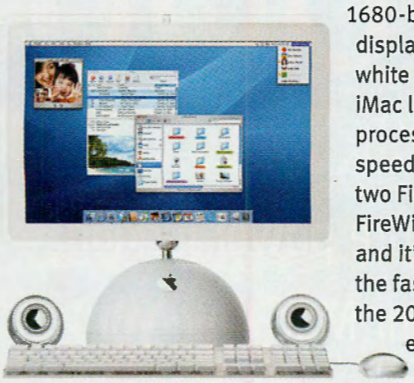
Relive the 80s with over 75 Atari arcade classics, including Pitfall, River Raid, and Bloody Human Freeway—that's 30 more games than that the previous PlayStation 2 version. You can play each game in Classic mode or in your choice of 15 enhanced modes. Enhanced modes include Ricochet, which zings the game around your screen as you play, and Cube, which puts the game on a face of a rotating 3D cube. Exclusively for Mac, play your games while enjoying—or enduring—80s pop hits from Fresh Prince, Flock of Seagulls, Alan Parsons Project, Billy Ocean, and others. Zits not included.—*MO*

Warning: This interface may remind you of junior high.

NEW APPLE HARDWARE

Priciest iMac Ever, plus 1.8GHz Dualie

My, what a big head you have! The new top-of the line **Apple iMac** ($2,199, www.apple.com) balances a giant 20-inch, 1680-by-1050-pixel flat-panel display on the same-size white dome as the rest of the iMac line. With a 1.25GHz processor, three high-speed USB 2.0 ports, and two FireWire 400 ports (no FireWire 800), the 20-inch and it's 17-inch sibling are the fastest iMacs yet—and the 20-inch is the most expensive of its ilk to date.



Is this iMac's display too big for its body? Apple says no.

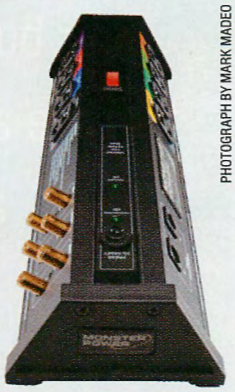
PHOTOGRAPH COURTESY OF APPLE

In other news, Apple transformed the previously single-processor 1.8GHz Power Mac G5 into a **Dual 1.8GHz Power Mac G5** ($2,499—only a hundred bucks more than the original), and dropped the price on the single-processor 1.6GHz Power Mac G5 to $1,799.

POWERSTRIP 2.0

Monster Management for Snarly Cords

You no longer put up with an ugly beige Mac, so why not hold your power strip to the same high standard? **Monster Cable's Computer Power Center PC 1000** ($149.95, www.monsterpower.com) combines four 500-watt outlets, four 1,500-watt outlets, three sets of coaxial cable connectors (for cable modem and cable TV), and an RJ-11 phone jack (for phone, fax, or DSL)—all within an attractive color-coded casing. Safety lights that show proper grounding and stickers for labeling cords are handy touches.



A gnarly hub for snarly cables.

PHOTOGRAPH BY MARK MADEO

SHAREWARE PICK OF THE MONTH

Blast asteroids in Argonaut 2149.

3D ASTEROIDS

DanLabGames www.danlabgames.com Free

Argonaut enhances the classic gameplay of Atari's Asteroids with 3D OpenGL graphics. Piloting your single-thruster ZX-24, you rack up points by blasting away asteroids while collecting green-glowing crystals. Watch out for scavengers who steal crystals, and pirates who try to blow you away. You can exchange crystals for power-ups and weapons.—*Andrew Tokuda*

ON THE DISC
Argonaut 2149 1.1

NEW STUFF

COLOR LASER PRINTER

What it is: This four-color USB 2.0 laser printer is quiet, has easy-to-replace individual ink cartridges (Samsung hasn't announced prices of replacement cartridges), PostScript support, and a network option.
Why it's cool: This printer has a cool shape and is relatively affordable.

Samsung CLP-500
$699
Available: Q1 2004
www.samsungusa.com

DOUBLE THE DISPLAY

What it is: The DS-1500 combines two 15-inch LCD displays on one stand, and hooks up to your Mac with two 15-pin VGA connectors. It offers up a less-than-stellar 250 cd/m2 brightness but has a respectable 400:1 contrast ratio.
Why it's cool: You get an inexpensive dual-display setup without the bulk of two actual displays.

DoubleSight DS-1500
$799
Available: Now
www.doublesight.com

iPOD BACKPACK

What it is: This ballistic nylon backpack has a soft control pad in the shoulder strap for you to control your iPod, which stows snugly in its own compartment.
Why it's cool: If you don't have the $379.95 for the Burton Shield iPod Jacket (formerly the $499 Burton Amp Jacket), this backpack is cheaper and suitable for all weather.

Burton Amp Backpack

$199.95
Available: Now
www.burton.com

SWIVEL-LENS CAMERA

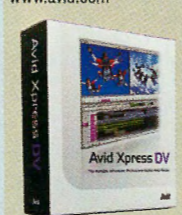
What it is: This 3.2-megapixel swivel-lens camera, with 3x optical zoom and fast 3.5-fps (frames per second) burst speed, comes in silver, blue, or red, and stores images on SD or MMC cards.
Why it's Cool: This teeny camera packs a respectable 3-megapixel CCD in a casing that weighs 5 ounces and measures just 0.6 inch.

Kyocera Finecam SL30R
$399
Available: Now
www.kyocera.com

AVID XPRESS DV UPDATE

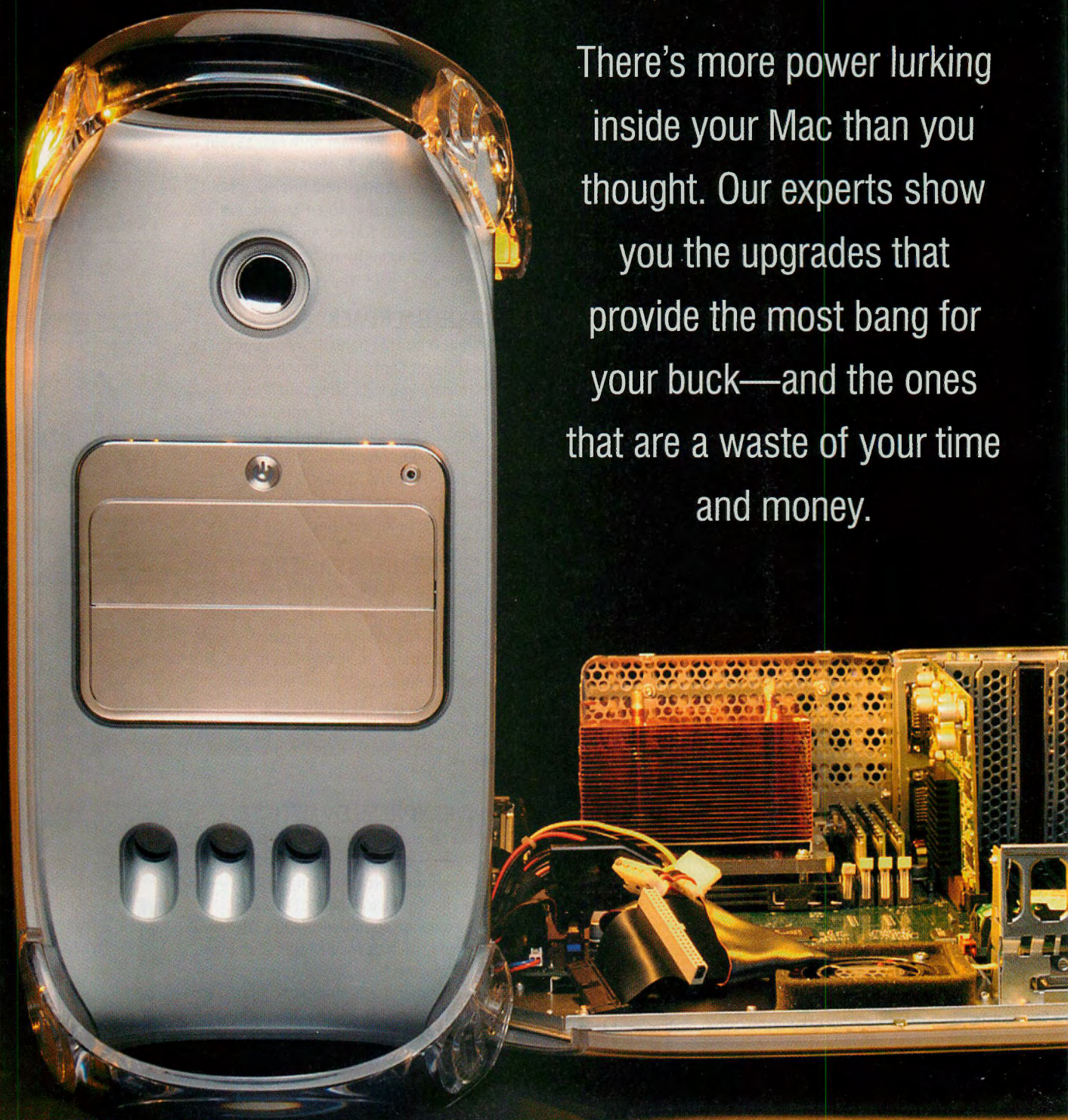
What it is: This video-editing software by Avid—a company justly famous for its hardware video-editing systems—is an alternative to Final Cut Pro. The new version comes with 100 real-time effects, such as moving titles, picture-in-picture effects, and automatic color correction for a sequence of clips.
Why it's cool: This pro video-editing app is now $300 cheaper than Final Cut Pro.

Avid Xpress DV
$695
Available: Now
www.avid.com



[Upgrade

There's more power lurking inside your Mac than you thought. Our experts show you the upgrades that provide the most bang for your buck—and the ones that are a waste of your time and money.



Your Mac]

MACADDICT'S ULTIMATE UPGRADE GUIDE

Your iMovie previews are choppy. Scrolling through a large iPhoto collection takes about a month or two. Applying a Gaussian Blur in Photoshop requires more patience than standing in line at the DMV. Just a year or three ago your Mac was perfectly capable of handling any task, but not anymore. Today's software demands more muscle. You feel like Captain Kirk, shouting to Scottie, "I need more power!" Only Scottie shouts back, "We canna afford it, Cap'n!"

The good news is that you may not need to plunk down a couple thou to get a noticeable power boost. Maybe your Mac just needs a upgrade. And we're not simply talking about sticking a faster microprocessor into an aging Mac. Upgrades also include additional RAM; bigger, faster hard drives; snappier video cards; and a host of speedier interfaces such as USB 2.0, FireWire 800, Serial ATA, and more.

But which upgrades are worth the expense? To find out, we gathered together upgrade cards, drives, and more, and spent weeks testing them in some of the more-popular Macs from the past few years. Some upgrades made a big difference. Some didn't. Read on—our test results might just save you a load of cash.

BY NIKO COUCOUVANIS AND RIK MYSLEWSKI
PHOTOGRAPHY BY MARK MADEO

What Are My Options?

If your Mac is doggin' it, it's not necessarily time for a replacement—you've got other options.

According to conventional wisdom, the average life span of a personal computer—Mac or PC—is 18 months. If we all heeded that rule, however, we all would have consigned our Quicksilver Power Mac G4s and 15-inch flat-panel iMacs to the dumpster by now.

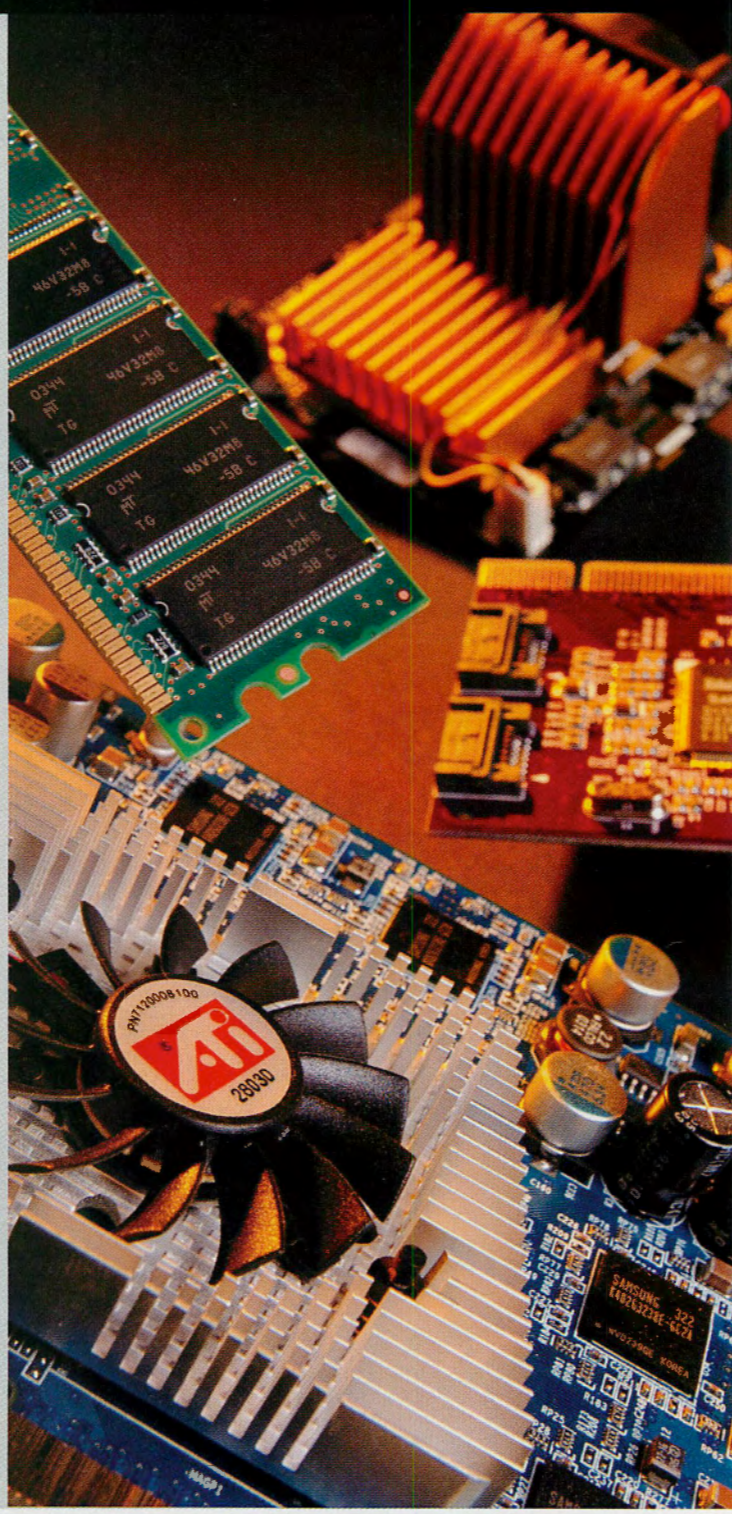
Yeah, right. Here in the real world, most of us make do with Macs past their prime. So how do you make your existing machines snappier and more responsive? Well, after optimizing your hard drives, trashing useless files, and making sure all your software is up-to-date, it's time to pull out the MasterCard and indulge in a little retail therapy.

But wait—before you dive for your plastic, make a realistic assessment of your current Mac and your personal needs. If your Mac is beige, you're running Mac OS 8 or 9, and you're perfectly happy with the way you've been word-processing, emailing, and spreadsheeting over the years, there's really no reason to upgrade. After all, you don't upgrade your toaster if all you want is the same toast you've been enjoying for years.

However, if you just want a bit of a power boost, you can pump some more power into your beige box—for a couple of hundred bucks, companies such as DayStar (www.xlr8.com), PowerLogix (www.powerlogix.com), and Sonnet Technologies (www.sonnettech.com) offer G3 or G4 PCI-card accelerators for pre-G3 Power Macs, and G3 or G4 ZIF daughtercards for Power Mac G3s. But don't expect modern-Mac performance. There's a lot more to your Mac than its processor: Aged system busses, support chips, hard-drive connections, and other hardware will slow it down. Also, before you toss a pile of money into your beige box, remember that a brand-new 1GHz G4-equipped eMac can be yours for $799—and it ships with Mac OS X. (Speaking of OS X, we'll assume for the purposes of this article that OS X is your operating system of choice.)

If you're running OS X and your Mac isn't beige, your upgrade depends upon how you use your Mac (see "What Do I Need?," p19). If you simply use it for day-to-day productivity tasks, such as Web surfing and word processing, you may just need to bump up your RAM. Mac OS X is a RAM piggy, and although Apple claims that 128MB of RAM is sufficient for OS X, we beg to differ. Think of 256MB as minimal, and 512MB or more as recommended. Also remember that OS X's Quartz Extreme feature, which noticeably improves graphics performance and the perceived responsiveness of the Finder, requires 16MB of VRAM. Most CRT iMacs, iBooks shipped before May '02, and the original TiBooks need not apply—and there's no way to upgrade their VRAM.

In order to help you decide how to get the most for your upgrade money, we tested different upgrade options on a half-dozen Macs: 800MHz 15-inch and 1GHz 17-inch flat-panel iMacs; 400MHz AGP (accelerated graphics port) Graphics (more



commonly known by its code name, Sawtooth), Dual 800MHz Quicksilver, and Dual 1.42GHz Mirrored Drive Door Power Mac G4s; and a Dual 2GHz Power Mac G5, all running Mac OS 10.3. Depending upon the type of Mac you have, there are essentially five ways to fire it up.

FIVE WAYS TO UPGRADE

MORE RAM The most cost-effective way of improving your Mac's performance is to add RAM. Period. RAM improves performance by letting your Mac do all its work in speedy memory, without having to repeatedly access the comparatively leisurely hard drive to read and write files and data. The difference can be dramatic, especially if you use processor-intensive software such as Photoshop.

FASTER PROCESSOR For most modern Macs, installing a faster processor isn't an option. However, the older your Mac, the better your chance at finding a processor upgrade—and we discovered that some can provide a hefty speed boost.

IMPROVED STORAGE Each Power Mac G4 tower has room inside for multiple hard drives, and Mac OS X's Disk Utility (Applications › Utilities › Disk Utility) includes the option to combine two drives into a performance-enhancing RAID 0 configuration. In addition, Sonnet Technologies offers PCI cards that provide faster internal drive busses than the ones in your Power Mac. But is it worth the trouble to upgrade? Our tests proved that while older Power Macs can benefit greatly from faster drives, RAID 0 sets, and faster internal busses, newer Macs benefit little, if at all.

BETTER VIDEO CARD The selection of video-card upgrade possibilities open to Mac owners is quite sad. If you own an iMac, your options are zip, zilch, or bupkis. Your only real option is to buy a new Mac. But don't buy an iMac for a high-quality gaming experience. Even though our tests showed that the 17-inch iMac was as much as 50 percent faster than the 15-inch model, its framerate scores were still only a third to two-thirds as fast as the ATI Radeon 9600 Pro card that comes in the Dual 2GHz Power Mac G5.

MODERN INTERFACE OPTIONS If your Power Mac was released before the Blue-and-White G3, you need to add FireWire 400 ports. If it's older than a January '03 Mirrored Drive Door, you might want to add FireWire 800 ports. If you don't have a Power Mac G5 or a late model 'Book or iMac, you might consider USB 2.0 ports.

What 'bout My 'Book?

IMAGE COURTESY OF APPLE

PowerBooks and iBooks aren't great candidates for upgrades. You often can't upgrade their processors, which are soldered onto their motherboards. You have to reach all the way back to the late-1990's PowerBook G3 Wallstreet, PDQ, and Lombard (also known as Bronze Keyboard) models to find a PowerBook you can upgrade yourself. Sonnet Technologies offers 500MHz Crescendo/WS G3 and G4 processor upgrades ($249.95 and $349.95, respectively) for the first two. PowerLogix has upgrades for all three: the 500MHz BlueChip G4 ($379) for the Wallstreet and PDQ, and the BlueChip G4 LS ($379) for the Lombard.

The FireWire-equipped PowerBook G3 of 2000, code-named Pismo, can also be upgraded—but not by you. DayStar offers 550MHz and 500MHz XLR8 MACh Speed G4 Pismo upgrades ($329 and $289, respectively), but you have to ship the company your PowerBook and let them perform the installation. PowerLogix also has a mail-in Pismo upgrade offering: the 900MHz BlueChip Pismo G3 ($349), but the company doesn't require that you send in your whole PowerBook—just the CPU card.

You can upgrade the hard drive in a 'Book with varying degrees of ease. If you go through the trouble of replacing yours with a more-capacious model, also consider a faster drive. Most 'Books have 4,200-rpm drives, but you can replace those low-speed spinners with 5,400-rpm drives—or even 7,200-rpm drives, such as Hitachi's recently released 60GB Travelstar 7K60 ($260, www.hgst.com/hdd/travel/tr7k60.htm).

What Do I Need?

Different users have different needs. Before deciding on an upgrade plan, find your primary activity in the list below, then take a look at our recommendations.

● Absolute Must ● Would Be Nice ● Not Worth It

	Fast Processor	Loads of RAM	Large Hard Drive	High-Speed Hard Drive	FireWire 800	Fast Video Card
Day-to-Day Productivity	●	●	●	●	●	●
Consumer Video Editing	●	●	●	●	●	●
Consumer Audio Editing	●	●	●	●	●	●
Graphic Design and Layout	●	●	●	●	●	●
Professional Video Editing	●	●	●	●	●	●
Professional Audio Editing	●	●	●	●	●	●
Hard-Core Game Playing	●	●	●	●	●	●

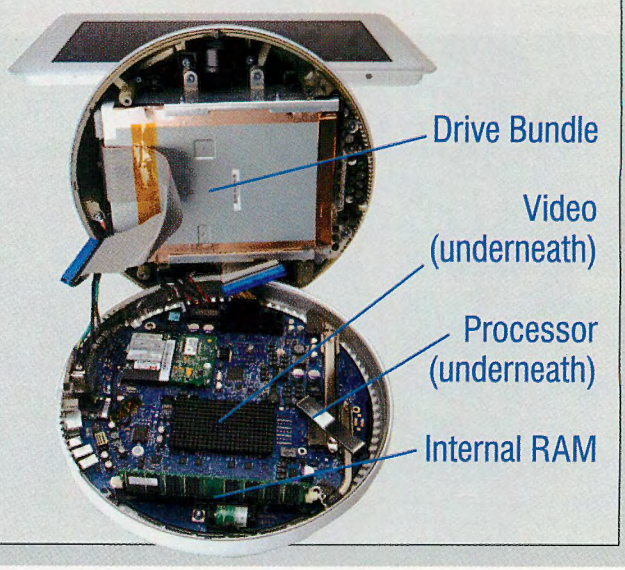
iMac G4

Flat-panel iMac G4s don't offer many upgrade options—unless you're willing to void your warranty, that is.

In the long-standing tradition of Apple's all-in-one Macs, your flat-panel iMac is essentially a closed system—that is, Apple didn't intend for you to upgrade anything other than RAM and AirPort. Only one RAM slot is user-accessible, with the remaining slot hidden deep inside the iMac's snow-white dome. You're limited to adding one 512MB SO-DIMM (small-outline dual in-line memory module) into the user-accessible slot, so if your iMac came with only 128MB or 256MB of RAM in the hidden slot, you're limited to 640MB or 768MB of RAM. Even so, that's not shabby. We tested iMac performance at three different RAM levels (see "What a Difference a Gig Makes," p21), and our tests showed a marked increase in Photoshop performance as we added RAM—for example, speed essentially doubled with each RAM upgrade when we ran our 25MB-file tests.

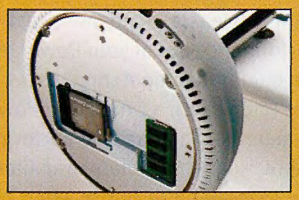
Now, if you didn't have the insight to upgrade that internal RAM slot to its maximum capacity when you bought your iMac, you're not necessarily stuck: As you'll see here, it *is* possible to upgrade it to its full 512MB capacity. We'll also give you a head start on upgrading your iMac's hard drive, should you feel brave. Remember, however, that mucking about deep inside your iMac is a warranty-voiding offense.

iMac Guts

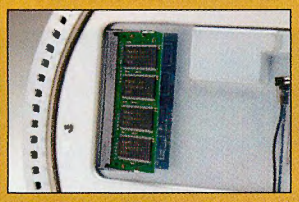


Add RAM

You can avoid potential damage to your iMac and its warranty by planning ahead when you purchase a new iMac: Apple's build-to-order options include adding a second 256MB DIMM ($100 extra) for 512MB total, or getting a single 512MB DIMM ($200 extra) in the internal RAM slot. Paying the extra $200 keeps the easy-access slot available for future RAM upgrades. Don't skimp and fall for a reseller's free RAM upgrade—they'll just slap a token SO-DIMM in the easy-access slot.



1 To upgrade your iMac's user-accessible RAM, first unscrew the four stay-put screws and pop off the bottom plate.



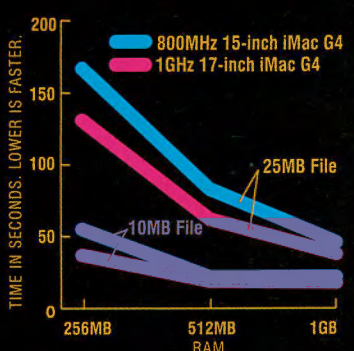
2 Once you remove the bottom, you can drop up to 512MB of RAM into this slot.

3 You have to break into the dome to replace the iMac's internal RAM.

ALL RAM MODULES PROVIDED BY CRUCIAL TECHNOLOGY

What a Difference a Gig Makes

To discover how RAM improves an iMac's performance, we created a Photoshop Action that mimics the type of activities you might perform while working with a digital photograph. We applied that Action to 10MB, 25MB, and 50MB Photoshop files, on both an 800MHz 15-inch iMac G4 and a 1GHz 17-inch iMac G4. After each round of tests, we upgraded each iMac's RAM from 256MB to 512MB to 1GB (the maximum capacity)—standard SDRAM in the 15-incher, and DDR (double data rate) SDRAM in the 17-incher. Above are the results of the 10MB- and 25MB-file tests.

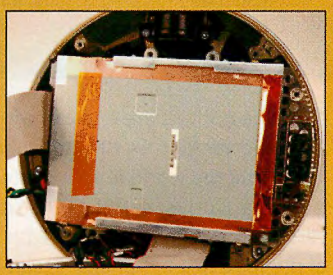


Both iMacs were running Mac OS 10.3. Photoshop's cache level was set to 4, its Memory Usage was set to 100 percent, and all its History Options were unchecked. The Photoshop Action consisted of the following automated steps: Gaussian Blur, 50-pixel radius; Revert; Gaussian Blur, 1-pixel radius; Unsharp Mask, amount of 150 percent, 2-pixel radius, threshold of 0; Despeckle; Dust & Scratches, 8-pixel radius, threshold of 0; Sharpen Edges; Rotate, 90 degrees clockwise; Mode Change, RGB to CMYK; Resize, 150 percent, proportions constrained, bicubic interpolation; Save As, TIFF, no compression; Seat Backs & Tray Tables, full upright position, locked.

Upgrade Your Hard Drive

The hard drive lives near the center of your iMac, above the optical drive. This is no-go land—Apple's documentation makes it clear that breaching the snowy dome instantly and irrevocably voids your iMac's warranty. Party poopers.

If you're an adept tinkerer, there are step-by-step directions available online for replacing your iMac's hard drive (www.xlr8yourmac.com/systems/iMac_g4/imacg4_takeapart.html). But if your knees are a-knockin', spend a little extra and buy an external FireWire drive instead.



Only the bold dare delve deep enough to replace an iMac's hard drive.

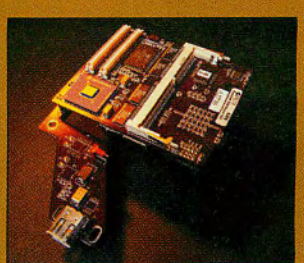
Antique iMacs

When you and your first CRT iMac met, it was love at first sight. It was sleek yet perky, playful yet sophisticated, strong enough to put in a full day's work and still have enough moxie left for an evening of fun.

But that was years ago. Today, the bloom has departed from the rose—or rather, the Ruby. Or the Tangerine. Or the Blueberry. Whatever.

Unfortunately, when it comes to upgrades, there's little you can do. Yes, you can easily add more RAM to your iMac—up to 512MB in the Rev A through D iMacs (the ones in which you load CD-ROMs on a pop-out tray rather than into a slot), and up to 1GB in the later models. And if you're handy with tools, a hard-drive upgrade is a possibility. If you want to go mucking around inside your iMac, go to www.djonmac.com for tips on how to upgrade RAM and replace the hard drive in Rev A through D iMacs. For newer iMacs, Google up "Apple Service Manuals"—since Apple's none too keen on these being in the public domain, the sites that offer them tend to have short shelf lives.

If you're like a bald eagle or a Canada goose, you mate for life and perhaps can't bear to divorce your old Rev A through D iMac. Sonnet Technologies offers a bit of a boost for the old babe: The HARMONi/G3 processor upgrade card ($349.95) will hoist your antique iMac up to 600MHz and give it a FireWire 400 port.



Install a Sonnet Technologies HARMONi/G3 with FireWire.

Power Mac G4

Power Mac G4 towers are easy to open and easy to upgrade, come RAM, hard drive, or PCI and video card.

The options are endless when it comes to upgrading a Power Mac G4 desktop machine. Just flip down the lid, and the world is your oyster. You can add RAM, another hard drive, or PCI cards. You can change out the video card, trick out your machine with FireWire 800 and USB 2.0, or upgrade to a faster processor. But which of these gives you the most bang for your buck? In search of the answer to that question, we ran about a million tests (well, almost) on a 400MHz Sawtooth G4, Dual 800MHz Quicksilver G4, and Dual 1.42GHz Mirrored Drive Door G4. Here's what our tests revealed.

RAM The easiest and most cost-effective way to squeeze more performance out of your Power Mac G4 is to add RAM. When we ran our Photoshop Action tests on three different Power Mac G4s (along with a Dual 2GHz Power Mac G5), we discovered tremendous increases in performance. In tests using 10MB, 25MB, and 50MB Photoshop files, performance was routinely two to three times better when Photoshop had enough RAM to

avoid swapping data back and forth to the hard drive (see "The Power of RAM," p25).

HARD DRIVE Upgrading your hard drive, along with the data path it uses to talk to your Mac, is a great way to speed up your work. Your upgrade choices are legion: Sonnet Technologies offers a series of PCI cards that'll add an ATA/133 or SATA-150 (serial ATA) internal hard-drive bus. Plus, a number of companies offer FireWire 800 and USB 2.0 PCI cards in a host of different configurations (see "PCI Card Tricks," p26).

To see what kind of data-transfer boost we could achieve by adding a higher-speed bus to our Power Mac, we used Maxtor 7,200-rpm DiamondMax Plus 9 drives (ATA/133, $159.95; SATA-150, $199.99; www.maxtor.com), along with Mac OS X's built-in RAID 0 data-striping capabilities, to perform about 100 file-transfer tests on 16 different drive and card configurations in three different Power Macs. Our *first discovery:* Configurations that used an ATA/133 or SATA-150 PCI card in a Mirrored Drive Door G4 to create a two-drive internal RAID 0 set were essentially no faster than a RAID 0 set created by Mac OS X's Disk Utility on that G4's stock internal ATA/100 bus. What's more, *that* RAID 0 set on the stock internal ATA/100 bus was only marginally faster than the single drive that ships with the Mirrored Drive Door G4—about 9 percent faster at just under 40 MBps.

The hard-drive story is different on older Power Macs. On a Sawtooth G4, for example, the stock internal drive on average pokes along at just under 15 MBps when reading and writing files to an external FireWire 400 drive. Add a FireWire 800 card connected to a fast FireWire 800 drive, and the average kicks up to about 19 MBps (we used LaCie's $79 FireWire 800 PCI Card and $349 250GB d2 hard drive, www.lacie.com). You can get even more creative and connect an internal SATA-150 RAID 0 set (using the Sonnet PCI card) with two external FireWire 800 drives in a RAID 0 set created by Disk Utility, and the file-transfer speed on that old Sawtooth jumps to 36 MBps—nearly two and a half times as fast as the stock drive.

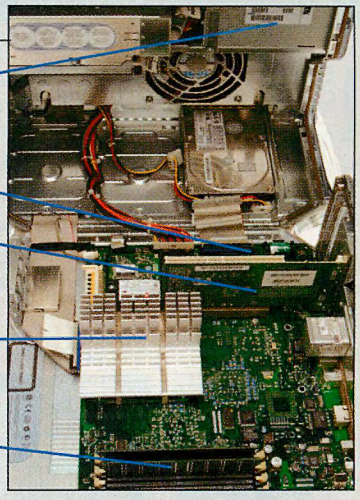
The moral: If you have an old Mac, invest in a faster storage configuration. If you have a new Mac, don't bother.

PROCESSOR UPGRADES Most newer Power Macs don't need 'em, and beige-box Power Macs aren't usually worth the expense of upgrading, but one middle-aged Mac that *can* benefit from a processor upgrade is the Sawtooth Power Mac G4. This workhorse has a system bus that purrs along at a respectable 100MHz—fast enough not to choke a processor upgrade. We ran our Photoshop Action on three top-of-the-line 1.4GHz upgrade cards: Other World Computing's Mercury Extreme ($559.99, www.macsales.com), PowerLogix's PowerForce G4 ($449), and Sonnet Technologies' Encore ST/G4 ($549.95), plus a lower-cost, lower-speed DayStar 550MHz XLR8 550 MAChSpeedG4 Sawtooth ($199).

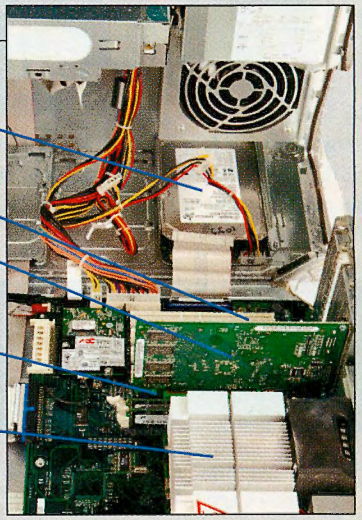
When the poor old Sawtooth had a mere 256MB of RAM, the upgrades hardly helped at all—but when we increased the RAM to 1GB, each 1.4GHz upgrade card performed more than twice as fast as our stock 400MHz Sawtooth, and the 550MHz MAChSpeedG4 achieved a respectable 20 percent improvement. The 1.4GHz cards were equally impressive when ripping a CD to AAC and encoding a 2GB DV file to MPEG-2—well over twice as fast as the stock Sawtooth.

Power Mac G4 Guts

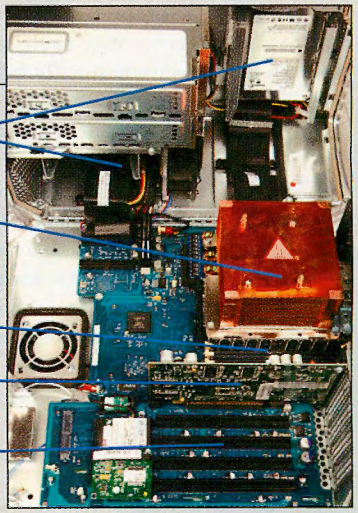
SAWTOOTH



QUICKSILVER



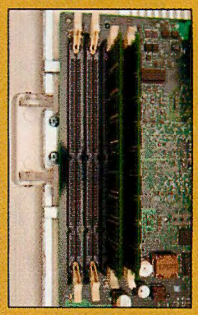
MIRRORED DRIVE DOOR



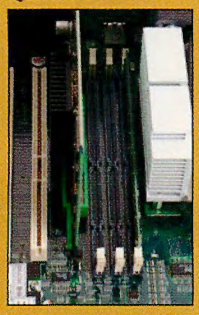
Add RAM

If you've got the hots for a G5 but your wallet won't let you follow your lust, check out "The Power of RAM," p25, then give your G4 a hug. Bottom line: A fast dual-processor G4 with a full complement of RAM can hold its own against a stock G5 with less RAM. But remember, it's important to get RAM that's compatible with your system (don't worry, there are plenty of Mac-savvy online vendors who can help you out). Just don't buy from Apple because while the quality's great, prices aren't.

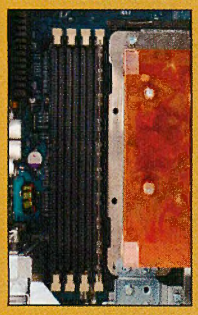
Sawtooth



Quicksilver



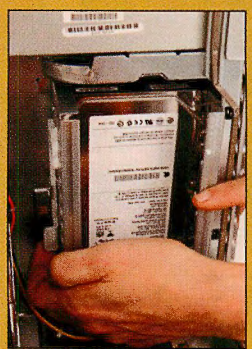
Mirrored Drive Door



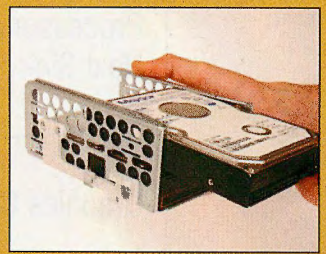
Most G4s have four easy-access RAM slots that you can stuff with up to 2GB of RAM. The exception is the Quicksilver family, whose three slots can hold only 1.5GB.

Add a Second Hard Drive
(Mirrored Drive Door)

The Mirrored Drive Door G4's vertically mounted hard-drive cage is easy to work with. To remove it, simply remove the securing screw and release the lever on the left side of the cage, then lift up on the cage to free it from the rear-mounting bracket. As you pull out the cage, unplug the drive's data- and power-cable connectors. Since you're adding a second drive to the ATA bus, don't forget to set the second drive's jumpers to the slave configuration—check the drive's documentation to find out how.



1 Pull the cage up and out. When you can reach the data- and power-cable connectors, unplug them from the drive.

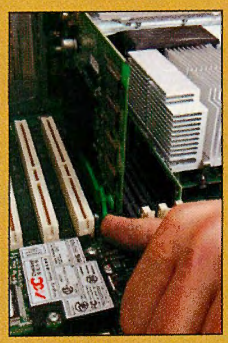


2 Slide in another drive and reattach the cage.

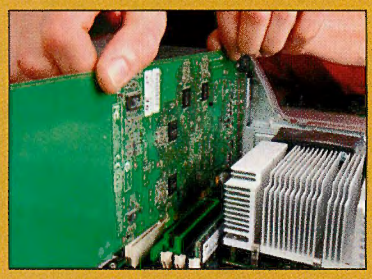
3 Attach the data and power connectors to each drive while reinstalling the cage.

Upgrade Your Video Card
(Quicksilver)

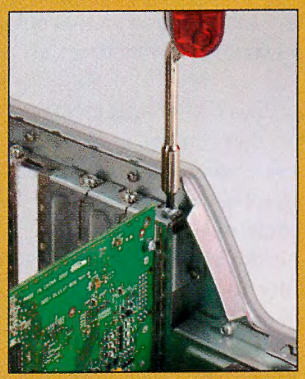
After the first-generation, woefully engineered Power Mac G4—appropriately code-named Yikes!—every subsequent Power Mac pipes its graphics through an AGP graphics card. But no Mac has more than one AGP slot, so it's a good thing that all the current AGP graphics cards available from ATI and nVidia can drive two monitors.



1 First, remove the anchoring screw, then remove the current video card.



2 Line up the new card's pins with the slot and push straight down on the card until it snaps into place.

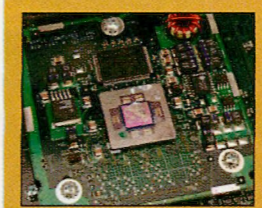


3 If the new graphics card gets unseated, your Mac won't boot, so lock it down with the anchoring screw.

Upgrade Your Processor
(Sawtooth)

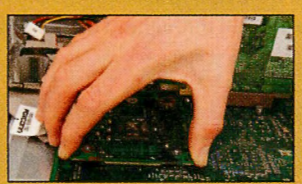
Upgrading your Sawtooth Power Mac G4's processor isn't anywhere near as scary as you might think. All you have to do is pop off two metal clips to free the heat sink, remove three screws, and replace the processor daughtercard. The difficult part is deciding whether to upgrade your G4's processor or treat yourself to a new Power Mac G5.

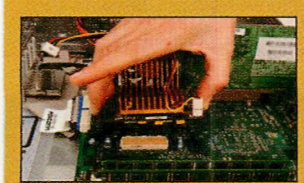
1 When prying off the heat-sink clips, use the sink (not the motherboard) for leverage.



2 These three screws secure the processor daughtercard to the motherboard—*don't lose them after you unscrew them!*

3 Lift the card up straight, or risk damaging the fragile connector on its backside.



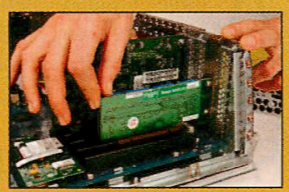


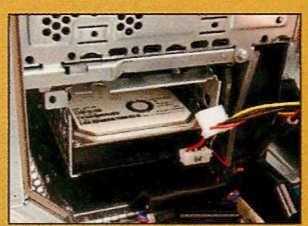
4 Steady now: Line up the screw holes and apply even pressure at each hole until you feel the new card's posterior connector snap into place.

Install a PCI-Based RAID
(Mirrored Drive Door)

PCI-card installation looks easy, but it can be tricky. Installing one involves aligning the card's long connector with the PCI slot, maneuvering a sometimes-stubborn anchoring screw into place, and finally, in the case of hard-drive controllers, getting the case closed without disrupting any of the drive-data cables. The payoff is that you gain FireWire 800, USB 2.0, Gigabit Ethernet, or, as in the case below, new internal drive busses that'll support tons of extra storage.

1 When you install a PCI card, make sure to anchor the card in its slot.



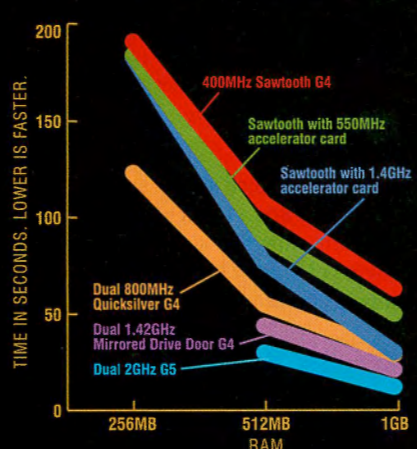


2 When installing drives in the ATA/66 drive cage, you don't *have* to bolt the drives into the cage, but you should. Neatness counts.

3 Connect the cables so they run from the card to the drives, and close the side panel without disturbing the data cables.

The Power of RAM

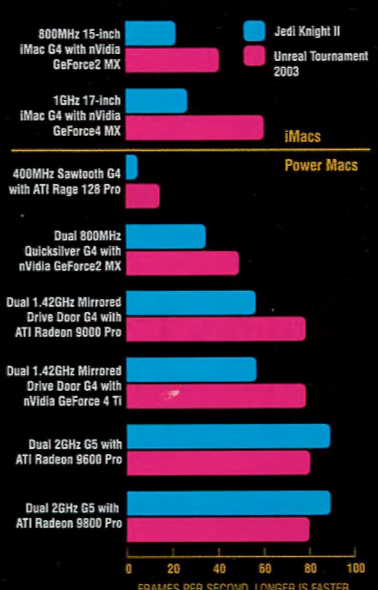
Using 10MB, 25MB, and 50MB Photoshop files, we performed our Photoshop Actions test on a gaggle of stock Power Macs, plus a Sawtooth Power Mac G4 equipped with processor-upgrade cards of 550MHz and 1.4GHz. We first tested each Mac at its stock RAM allotment, then stepped up the RAM to 512MB, 1GB, 1.5GB, and finally 2GB (except for in the Dual 800MHz Quicksilver, which maxes out at 1.5GB). The results of our 25MB-file tests are shown here. In each test, performance stabilized as soon as Photoshop found its RAM comfort level. In the 25MB-file tests, that level was 1GB—we saw no improvement at RAM levels higher than that.



The Graphics-Card Bummer

If you're looking for the kind of searing framerate performance that your game-playing PC friends brag about, we've got some bad news for you: Your iMac's video circuitry isn't upgradeable, and your options for adding a high-speed video card to your Power Mac are limited.

We tested the iMacs, the 400MHz Sawtooth, and the Dual 800MHz Quicksilver with their stock video cards; a Dual 1.42GHz with ATI Radeon 9000 Pro (stock) and nVidia GeForce 4 Ti (upgrade, $200, from www.apple.com) cards; and a Dual 2GHz G5 with ATI Radeon 9600 Pro (stock) and Radeon 9800 Pro (upgrade, $300, www.apple.com) cards, running Unreal Tournament's Asbestos Fly-by test and a custom benchmark for Jedi Knight II (all at the games' default settings).



PCI Card Tricks

Your Power Mac's PCI Slots are just sitting there, waiting for you to take advantage of them. Fill them up!

All Power Macs since the first beige G3 have included three or four PCI slots—but the majority of Mac owners never use them. The reason is simple: Most of us have no need to put anything in them. But that's changing. With the introduction of AirPort Extreme, FireWire 800, and USB 2.0, and with the desire to put faster drives inside our Macs, the humble PCI slot is making new friends. Here are a few ways you can put yours to work.

Storage Connection Cards

Older Power Macs can benefit from an internal ATA/133 or SATA-150 PCI card, to which you can attach fast hard drives. Each ATA/133 port can support up to two drives; each SATA port can support one. The Sonnet Tempo RAID133 includes a hardware RAID controller; the Tempo Trio has dual FireWire 400, USB 2.0, and ATA/133 ports; and the Tempo HD 40 includes a 40GB hard drive and one ATA/133 port. The Adaptec PowerDomain 39160's two Ultra160 SCSI channels provide a scorching theoretical throughput of 320 MBps.

TECHNOLOGY	MANUFACTURER	PRODUCT	PORTS	PRICE
ATA/133	Sonnet	Tempo ATA33	two ATA/133 ports	$99.95
		Tempo RAID133	two ATA/133 ports hardware RAID controller	$199.95
		Tempo Trio	two ATA/133, two FireWire 400, two USB 2.0 ports	$179.95
		Tempo HD 40	one ATA/133 port, 40GB 4,200-rpm drive	$239.95
SATA-150	Sonnet	Tempo Serial ATA	two SATA-150 ports	$99.95
SCSI	Adaptec	PowerDomain 39160	two Ultra160 SCSI channels	$480.00

Peripheral Connection Cards

If your Power Mac is older than a Blue-and-White G3, your machine doesn't have FireWire 400. FireWire 800 didn't show up until the January 2003 version of the Mirrored Drive Door G4, and USB 2.0 didn't enter the Power Mac arena until the G5 appeared. Why go without the speed and convenience of those technologies when there are plenty of reasonably priced PCI cards just waiting to help you out?

TECHNOLOGY	MANUFACTURER	PRODUCT	PORTS	PRICE
USB 2.0	Iogear	Hi-Speed USB 2.0 PCI Card	two USB 2.0 ports	$19.99
	Orange Micro	USB 2.0 PCI	two USB 2.0 ports	$24.99
FireWire 800	Iogear	FireWire 800 three-port PCI Card	three FireWire 800 ports	$79.00
	LaCie	FireWire 800 PCI Card	three FireWire 800 ports	$79.00
	Orange Micro	Orange Link FireWire 800 PCI Card	two FireWire 800 ports, one FireWire 400 port	$79.00
	Sonnet	Allegro FW800	three FireWire 800 ports	$89.95
Combo USB 2.0/FireWire 400	Iogear	Hi-Speed USB 2.0/FireWire Combo PCI Card	three USB 2.0, two FireWire 400 ports	$59.95
	Orange Micro	OrangeLink USB 2.0/FireWire	three USB 2.0, two FireWire 400 ports	$79.00

Network Cards

AirPort Extreme (aka 802.11g) entered the Power Mac line with the January '03 version of the Mirrored Drive Door G4—if you want to connect an older Power Mac to a wireless network, you're limited to the much slower speeds of the original AirPort (aka 802.11b). If your Power Mac G4 is of Sawtooth vintage or older, you're not enjoying the benefits of Gigabit Ethernet. Sonnet offers PCI cards to lift both limitations.

TECHNOLOGY	MANUFACTURER	PRODUCT	PORTS	PRICE
802.11g (AirPort Extreme)	Sonnet	Aria extreme PCI	one antenna port (antenna included)	$99.95
Gigabit Ethernet	Sonnet	Presto Gigabit Ethernet	one RJ-45 Ethernet port	$89.95

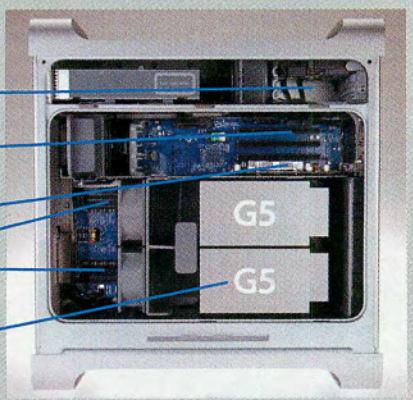
Power Mac G5

The Power Mac G5, like Mary Poppins, is "practically perfect in every way." But we have some suggestions.

The Power Mac G5 is so new, powerful, and packed with features that the concept of *upgrading* it might seem a wee bit obscene—but we gave it a shot anyway.

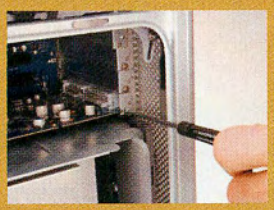
Check out "The Power of RAM," p25, and you'll see that the Power Mac G5 benefits from an infusion of RAM—but although the Power Mac G5 holds 8GB of RAM, rarely will any file you work on require more than 2GB. Then there's your internal hard drive. While it's easy to pair it up with another SATA-150 drive, our testing showed no performance advantage to combining two drives into a RAID 0 set using Mac OS X's Disk Utility—although the extra storage is useful. Here's how to pump up your G5.

G5 Guts



Upgrade Your Video Card

Our game framerate testing (see "The Graphics-Card Bummer," p25) showed little or no performance difference between a G5's stock Radeon 9600 and the $300 Radeon 9800 Pro upgrade when running games at their default settings. So pop for this step-up only if you need the Radeon 9800 Pro's ability to maintain high framerates as you tweak your games' graphics settings for higher resolution, richer detail, full-screen antialiasing, and graphics goodies such as trilinear filtering and dynamic tessellation. If you live for games, a video-card upgrade is worth the price.

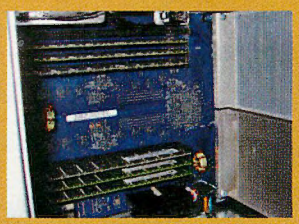


Once you get an offset screwdriver to remove the anchoring screw, and maybe a flashlight to find the little locking tab, changing AGP cards is basically unplug, plug, and play.

Add RAM

Notice the two banks of four slots each—the G5 accesses RAM in parallel; when upgrading, add RAM two DIMMs at a time to matching slots in each bank.

Add RAM in matched pairs. Start from the inner slots, and move out from there.

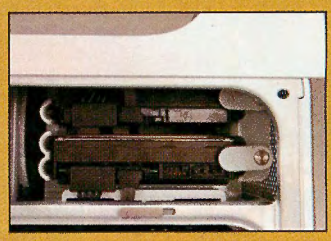


Add a Second Hard Drive

The G5's hard-drive bays are so user-friendly that you can add or remove disks all day long with nary a tool or scratched knuckle. OK, you might need a Phillips screwdriver for the included drive-guide screws, but we finger-tightened ours. The real functional elegance here is in the cable management—the petite data and power connectors are already in perfect position; you just slide in the drive and plug it in. One other nicety: SATA's smart cables and connectors ignore the entire ATA master versus slave hoo-hah. *Muy conveniente.*

1 Install the provided mounting screws on the case of your second hard drive, then slide that baby right into place.

2 The data and power cables are right where you need them.



Reviews Editor Niko Coucouvanis and Editor in Chief Rik Myslewski contend that if they could have missed their deadline by an additional week, they could have tested every combination of processor-card, RAM-level, video-card, and hard-drive upgrade—or gone stark raving mad trying.

The Circle is Complete

HALO

Join the battle. Live the epic adventure yourself.
The most anticipated game in Macintosh history is now available.

Unlock the secrets of Halo to save mankind from the ruthless Covenant swarms. Take the fight online in customizable head-to-head multiplayer competitions against up to 15 opponents playing on Macs and PCs. Break open a redesigned arsenal complete with the wicked new fuel rod gun. Then go mobile in the redeveloped Rocket Warthog and Banshee. This is Halo evolved.

Now with online multiplayer

MATURE 17+
M
BLOOD AND GORE
VIOLENCE
Game Experience May Change During Online Play
ESRB CONTENT RATING www.esrb.org

BUNGIE gearbox SOFTWARE WESTLAKE INTERACTIVE POWERED BY GameSpy Microsoft game studios

www.macsoftgames.com MacSoft

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Get Creative with Adobe Creative Suite

Graphic designers rejoice! Adobe has revamped **Photoshop, Illustrator, InDesign,** and **GoLive,** and combined them to create the most powerful creative collection on the planet. Now *MacAddict* shows you new ways to use them all.

by John Cruise with artwork by Frank Wu

If new versions of your favorite graphics applications get your creative juices flowing, the Adobe Creative Suite should leave you positively drenched. Not only are the new versions of Photoshop, Illustrator, InDesign, and GoLive impressively updated, but also you can now buy them in a cash-saving Premium bundle with the previously released Acrobat 6 Professional and Adobe's new file-management application, Version Cue. Alternately, you can forego GoLive and Acrobat, save $300, and opt for the Standard bundle. You *can* still purchase individual applications and updates, but the aggressive pricing of the Adobe Creative Suite—which essentially gives you five applications plus Version Cue for the cost of two—is tough to pass up.

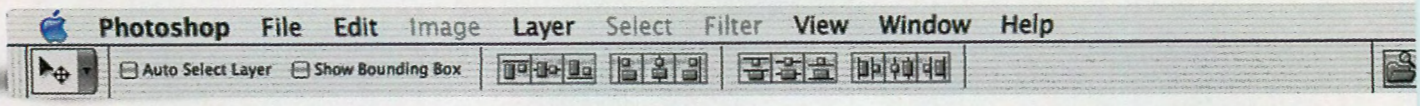
Whether you plan to use one or all of the Adobe Creative Suite applications, there's no time like the present to start learning about them. We'll introduce you to the best and brightest features of each application and show you how to start getting creative with them. But keep a towel handy: Once you start, you may never be able to get those creative juices to stop.

ADOBE CREATIVE SUITE PREMIUM $1,299
Photoshop CS, Illustrator CS, InDesign CS, GoLive CS, Acrobat 6 Professional, and Version Cue

ADOBE CREATIVE SUITE STANDARD $999
Photoshop CS, Illustrator CS, InDesign CS, and Version Cue

Also available as standalone purchases: Photoshop CS ($649), Illustrator CS ($499), InDesign CS ($699), and GoLive CS ($399)

Contact: 800-833-6687, www.adobe.com
Requirements: Mac OS 10.2.4 to 10.2.8 (should work in 10.3, although Adobe was still testing feature compatibility at press time)



Photoshop CS

Adobe adds handy new features—and improves upon old ones—in its update of the world's best image editor.

Get a Grip on Your Files

Adobe introduced the File Browser in Photoshop 7, and, like a cat, it was nice to have around but wasn't superuseful—it had limited powers and its interface was clunky. Happily, Adobe has retooled the File Browser in Photoshop CS, and the result is a file-management utility that's both powerful and easy to use.

EASE OF USE The toggle file browser icon (a folder with a magnifying glass) in the Photoshop CS options bar lets you quickly open and close the File Browser window—a big time-saver and much better than the File Browser tab that used to live in the Photoshop 7 options bar.

CUSTOMIZABLE WORKSPACES You can customize the File Browser by resizing the Folders, Preview, Metadata, and Keywords panes, and then dragging their tabs to other locations. You can save File Browser configurations as workspaces (Window › Workspace › Save Workspace), as well as display small, medium, large, and custom-size thumbnails (View menu).

MORE FILE FLEXIBILITY You can move files around in the File Browser window just by clicking and dragging their thumbnails—you can even drag them to a different folder. Plus, you can select multiple files and flag them for quick grouping by clicking the flag icon at the top of the File Browser window. The Show pop-up lets you display flagged files, unflagged files, or both, while the Sort and View menus provide several options for arranging and displaying files.

METADATA IMPROVEMENTS In the Metadata pane, you can define and assign data (description, copyright info, and so on) to single or multiple images, and it displays all information associated with a selected file. You can also perform searches based on metadata.

BETTER AUTOMATION The Batch command under the File Browser's Automate menu lets you perform actions on multiple files. The Automate menu's new Photomerge command combines multiple images into a single, seamless panorama, and commands such as Picture Package and Contact Sheet II are now accessible from the File Browser.

KEYWORD SEARCHES The Keywords pane lets you create individual keywords and sets of keywords that you can apply to one or more files, and includes a Search command under its flyout menu for performing keyword-based searches. For example, you could assign a keyword like *loser* to all images of your ex and then use that keyword as search criteria to quickly locate, display, and deface all of those pictures.

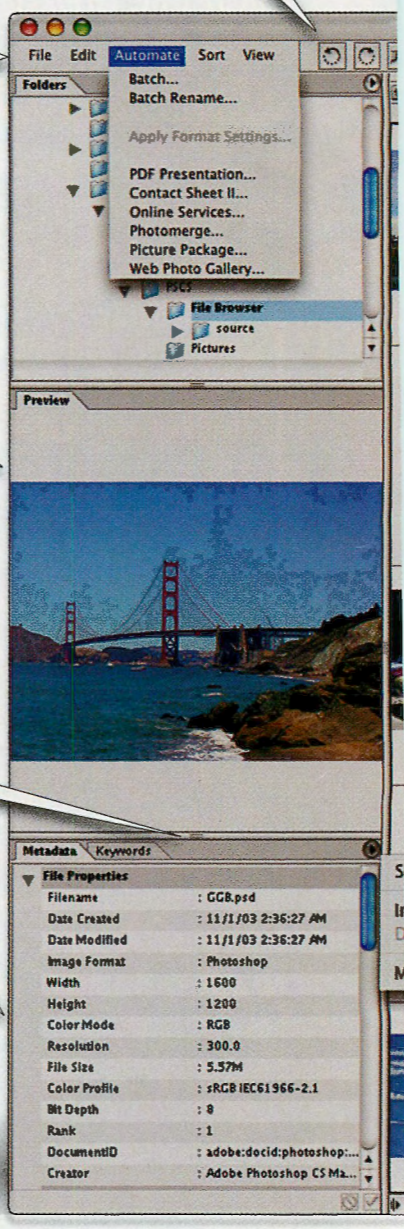
TOOLBAR
Here you'll find icons for frequently used File Browser commands: rotate, flag, search, and delete.

FILE BROWSER MENUS
These menus include commands for viewing and sorting files and let you easily perform automation tasks on multiple images.

PREVIEW
The Preview pane displays a high-res preview of the selected image. Resizing it makes previews larger.

CONFIGURABLE PANES
You can resize panes by dragging the grips at the intersection of any two panes, and you can reconfigure the arrangement of the panes by dragging their tabs to different locations.

METADATA PANE
Here you can view information about a selected image and perform metadata-based searches.

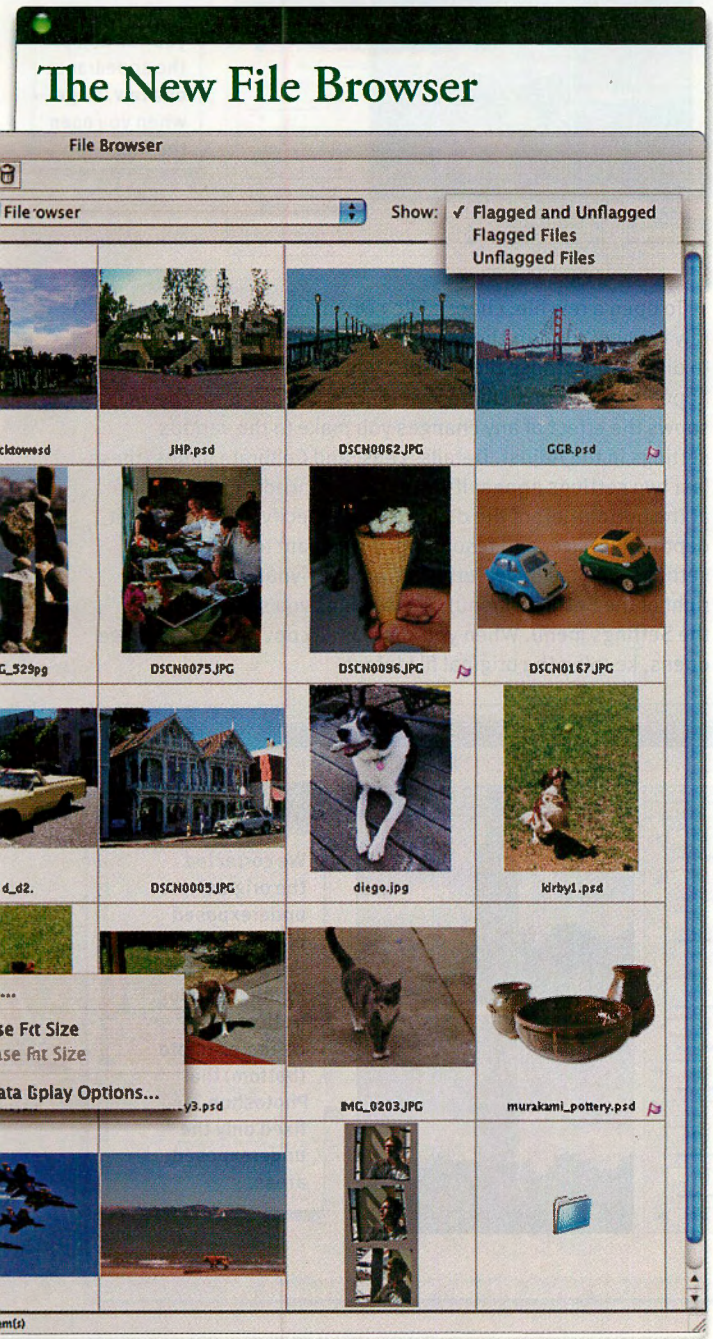


Match and Replace Colors

Ever take a series of outdoor photos, leave for 30 minutes to grab a hot dog, and come back to find that a change in the weather has wreaked havoc on your lighting? Well, with Photoshop CS's new Match Color feature, you can make that a two-hour hot dog break. Match Color lets you apply the color characteristics of one image (the source image) to another (the target image). This is useful for matching disparate color balance in photos taken under different lighting conditions or for creating special effects by applying the color scheme of one image to another.

When matching colors, you have the option to match entire images or selections within images. To match colors across two images, open the target and source images and select the target image. Tile the two windows (Window › Arrange › Tile) so that you can see both images, then choose Image › Adjustments › Match Color. From the Source menu in the Match Color dialog, choose the source image. Click the Neutralize box to remove any color cast in the target image, and click the Preview box to update the target image in the document window as you make changes. You can also adjust the Luminance, Color Intensity, and Fade controls to change the appearance of the target image.

While we're on the subject of color, the new color replacement tool—accessible under the healing brush tool (a bandage icon) in the tool palette—lets you apply the foreground color to a selection without affecting texture or shading within the selection. It's perfect for, say, making brown eyes blue or changing the color of that hideous green dress from the '70s to a more-pleasing hue.



Fix Shadows and Highlights

Some photos (and photographers) are so bad that nothing can save them. Others just need a little help: If you find yourself needing to correct underexposed or overexposed images, try the Shadow/Highlight feature (Image › Adjustments › Shadow/Highlight). This cool tool can greatly improve contrast in poorly exposed areas while preserving the overall appearance of the image. The bonus? Photoshop doesn't touch correctly exposed areas—and when you're done, your family won't be the wiser that you screwed up the photo in the first place.

Create Text on a Path

If you want to flow text along a path in Photoshop 7, too bad—you can't. In Photoshop CS, however, you can. It's essentially a two-step process: First, use the pen tool or one of the shape tools to create the path. Then select any of the four type tools, click the path you created, and enter your text. You can reposition the text by selecting the direct selection tool under the path selection tool (a solid arrow), moving the pointer over the text (an I-beam pointer appears when you do), then clicking and dragging. To flip the text to the other side of the path, position the pointer over the text, then click and drag the I-beam pointer across the path. Make a typo? No worries—you can edit any text on a path.

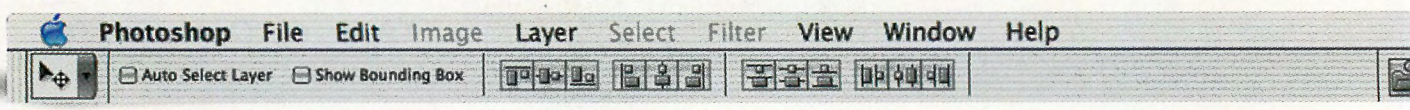
TEXT ON PATH

We created this path with the pen tool and added the text with the vertical type tool.

Unfortunately, Photoshop CS's text-on-a-path capabilities are wimpy wimpy wimpy compared to Illustrator CS and InDesign CS. For example, it neither includes any effects for type along a path (such as rainbow or skew), nor does it offer alignment options that let you position the text vertically relative to the path.

Correct Scanned Images

If you're like most graphic artists, you've probably spent many painful hours scanning images into your Mac—and many more



painful hours straightening each and every image in Photoshop because your shaky, overcaffeinated hands couldn't quite place them straight on the scanner. The Crop And Straighten Photos command (File › Automate › Crop And Straighten Photos), as you might have guessed, automatically crops and straightens all of the images in a multi-image scan and creates a separate file for each image. You can also use this feature to correct individual images.

Create Multiple Versions

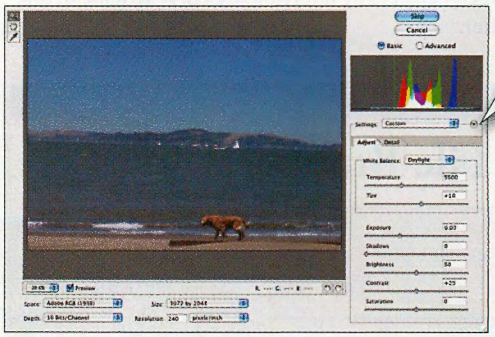
Sometimes, less is more—especially when it comes to managing graphics files. If you need to provide multiple versions of a layout to a client and don't want to hassle with multiple image files, you can use the layer comp feature—this creates a snapshot of the Layers palette that records the visibility, position, and appearance of the layers in a file.

To create a layer comp, open the Layer Comp palette (Window › Layer Comps). Arrange the layers the way you want them to be saved in the layer comp, and then choose New Layer Comp from the Layer Comps palette flyout menu. In the New Layer Comp dialog, choose the options you want to apply to layers (turn Visibility, Position, and Appearance on or off). Any settings you make apply to the next layer comp you create.

After you've created two or more layer comps, you can switch between them by clicking the layer comp icon (a layout) next to a layer comp name in the palette. As you make changes to a layer comp, you should periodically click the update layer comp icon (two arrows that form a circle) at the bottom of the palette to save changes. You can output individual layer comps, and you can create multipage PDF files and Web sites from a file's layer comps.

Go Raw

You don't have to be a sushi lover, but you do need to be a high-end digital-camera owner to appreciate the ability to work with raw image data—pure, unprocessed image data straight from your camera's CCD. The Camera Raw plug-in bundled with Photoshop CS (it was a $99 add-on for Photoshop 7) lets you manipulate raw files. Unfortunately, this feature doesn't work with raw files from all cameras; you can find a list of supported cameras at www.adobe.com:80/products/photoshop/cameraraw.html.

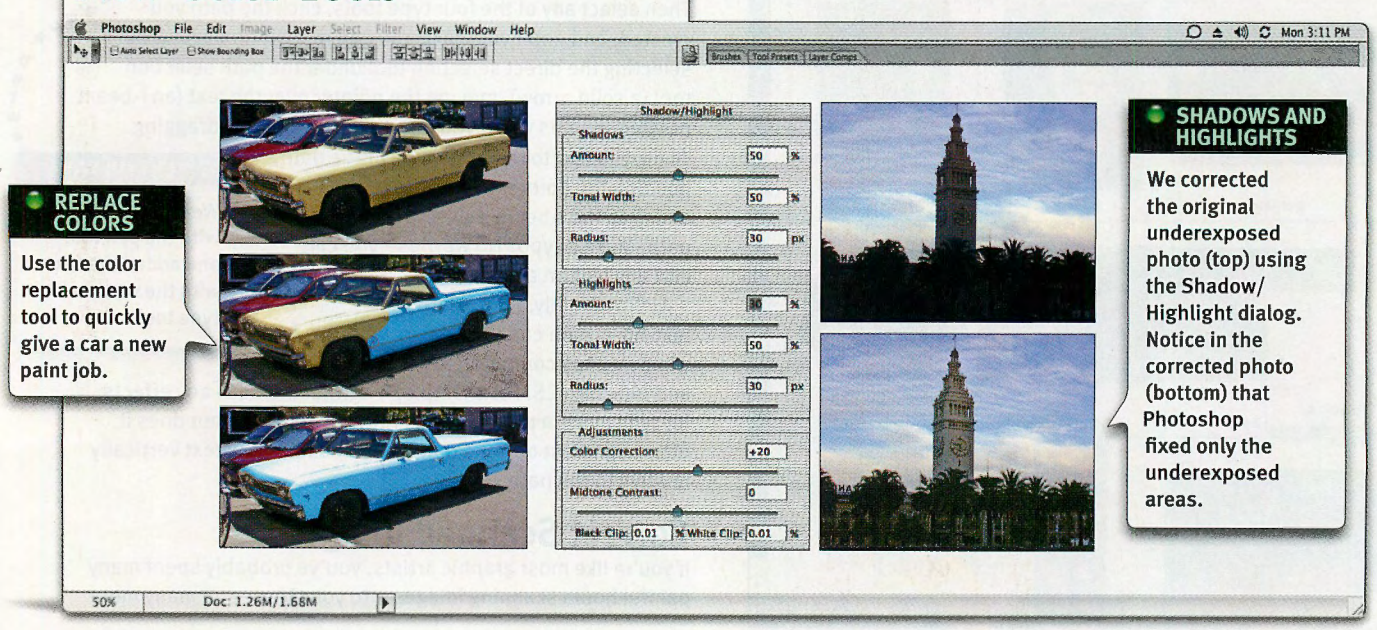


GO RAW

In the Camera Raw dialog, you can adjust the appearance of a raw image when you open the file.

To open a raw file, choose File › Open. Locate and select a raw image. (You can choose Camera Raw from the Show menu to display only those files.) When you click Open, the image appears inside the Camera Raw dialog. The preview window shows the effect of any changes you make to the various settings in the Adjust, Details, Lens, and Calibrate panes (these last two settings appear if you click Advanced). The controls at the bottom-left of the dialog let you specify color space, bit depth, pixel size, and resolution. If you want to save custom settings, choose Save Settings from the flyout menu (to the right of the Settings menu). The settings you save appear in the Settings menu. When you click OK, a copy of the raw image opens, keeping the original file intact.

New Color Tools



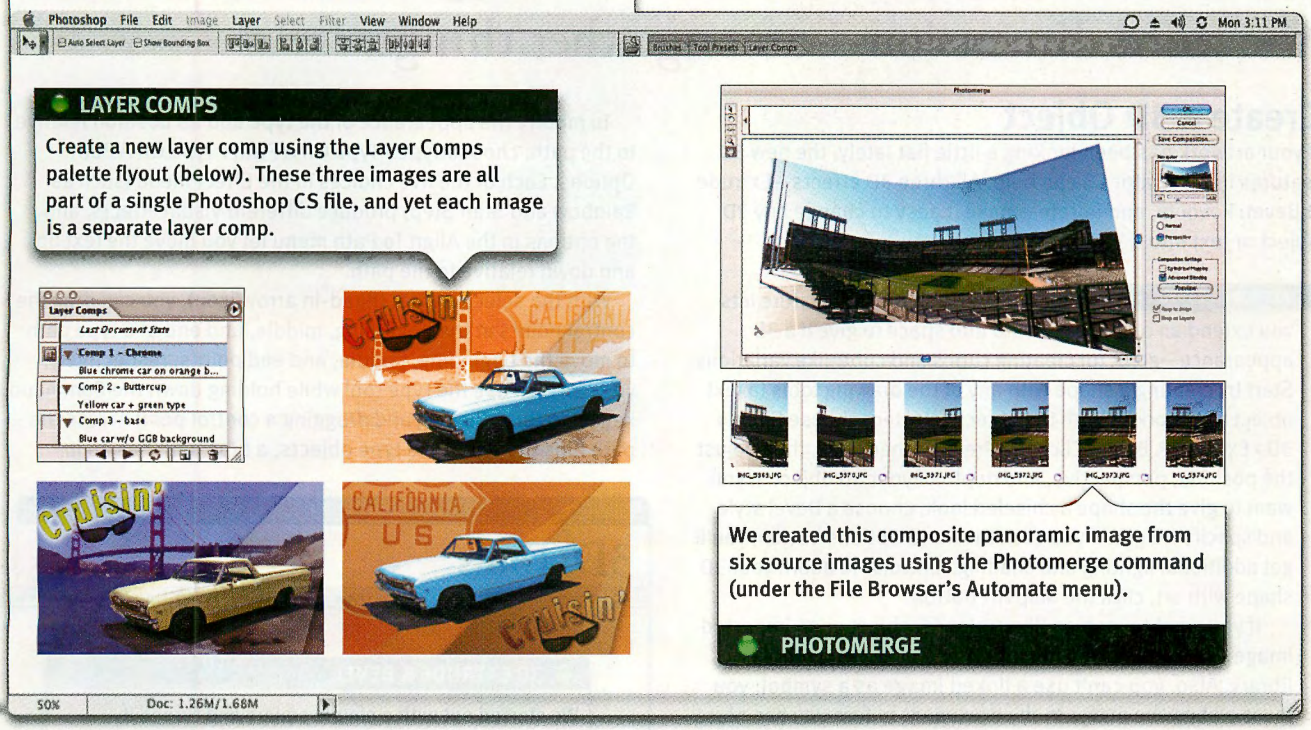
REPLACE COLORS

Use the color replacement tool to quickly give a car a new paint job.

SHADOWS AND HIGHLIGHTS

We corrected the original underexposed photo (top) using the Shadow/Highlight dialog. Notice in the corrected photo (bottom) that Photoshop fixed only the underexposed areas.

Automation Tools



LAYER COMPS

Create a new layer comp using the Layer Comps palette flyout (below). These three images are all part of a single Photoshop CS file, and yet each image is a separate layer comp.

We created this composite panoramic image from six source images using the Photomerge command (under the File Browser's Automate menu).

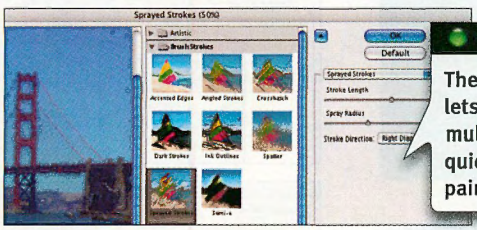
PHOTOMERGE

STADIUM PHOTOGRAPH BY GORDON WU

Apply New Filters

If you're a Photoshop filter junkie, then you'll love the new Filter Gallery dialog (Filter › Filter Gallery), which lets you adjust and apply multiple filters simultaneously, as well as see a graphical representation of what a filter does via thumbnails. Unfortunately, of the 13 filter sets available under the Filter menu, only the Artistic, Brush Strokes, Distort, Sketch, Stylize, and Texture sets show up in the Filter Gallery. To apply a single filter from the Filter Gallery, simply select the filter. For each new filter you want to apply, click the new effect layer icon (paper with the corner folded) at the bottom of the palette, then choose a filter.

There are also a couple of new filters, including Lens Blur (Filter › Blur › Lens Blur), which blurs portions of an image to create the effect of a narrower depth of field. When you apply the Lens Blur filter, some areas remain in focus while others are blurred. Also, the new Photo Filter (Image › Adjustments › Photo Filter) simulates the effect of standard photographic lens filters, including color, warming, and cooling filters; plus, you can pick a custom filter color using the Adobe color picker.



FILTER GALLERY

The Filter Gallery lets you apply multiple filters quickly and painlessly.

GOLDEN GATE PHOTOGRAPH BY AMY WU

Quick Tips

16-BIT EDITING Many features in previous versions of Photoshop, including several tools, layer options, and most filters, worked only with images that had 8 bits or less information per color. In Photoshop CS, all core features work with 16-bit images, which display more data for richer color and more-realistic images.

HISTOGRAM PALETTE The new Histogram palette (Window › Histogram) displays tonal and color information about an image or a selected portion of an image, and includes several options for controlling the information that's displayed. Knowing an image's tonal characteristics can help you determine if tonal corrections are appropriate.

IMAGES FOR VIDEO Digital video editors can now use Photoshop to create images with nonsquare pixels (video formats such as NTSC and PAL use rectangular pixels). You can then import these images into video-editing apps. The New Document dialog includes presets for standard video sizes and a pop-up menu for specifying the pixel aspect ratio.

Illustrator CS Adobe brings Illustrator into the third dimension—among other things.

Create a 3D Object

If your artwork has been looking a little flat lately, the new 3D features in Illustrator CS can help. All three 3D effects—Extrude & Bevel, Revolve, and Rotate—make it easy to change any 2D object or text into a 3D-looking shape.

EXTRUDE & BEVEL The Extrude & Bevel feature lets you extend an object backward into space to give it a 3D appearance—great for creating cubes and cube-like variations. Start by creating a shape with any of the drawing tools (a text object also works). With the object selected, choose Effect › 3D › Extrude & Bevel. Click the Preview check box, then adjust the position, perspective, and depth of your 3D object. If you want to give the shape a chiseled look, choose a Bevel style and specify Height. If you click the More Options button, you'll get additional lighting and shading controls. To adorn your 3D shape with art, click the Map Art button.

If you want to map an Illustrator CS object or an imported image to a surface, you must first add it to the Symbols library. Also, you can't use a linked image as a symbol; you must embed the image in the document before you can place it in the Symbols library. To do that, you must uncheck the Link check box in the Place dialog when you import the image into Illustrator CS or choose Embed Image from the Links palette flyout menu after you import the image.

REVOLVE The Revolve feature creates a 3D shape by spinning an object around an axis—useful for creating cylinder-based shapes such as cans and bottles. Begin by creating a shape with one of the drawing tools. Select the object you want to revolve, then choose Effect › 3D › Revolve. Click the Preview check box, then specify Position, Revolve, and Surface settings. Click Map Art to assign a symbol to the surface.

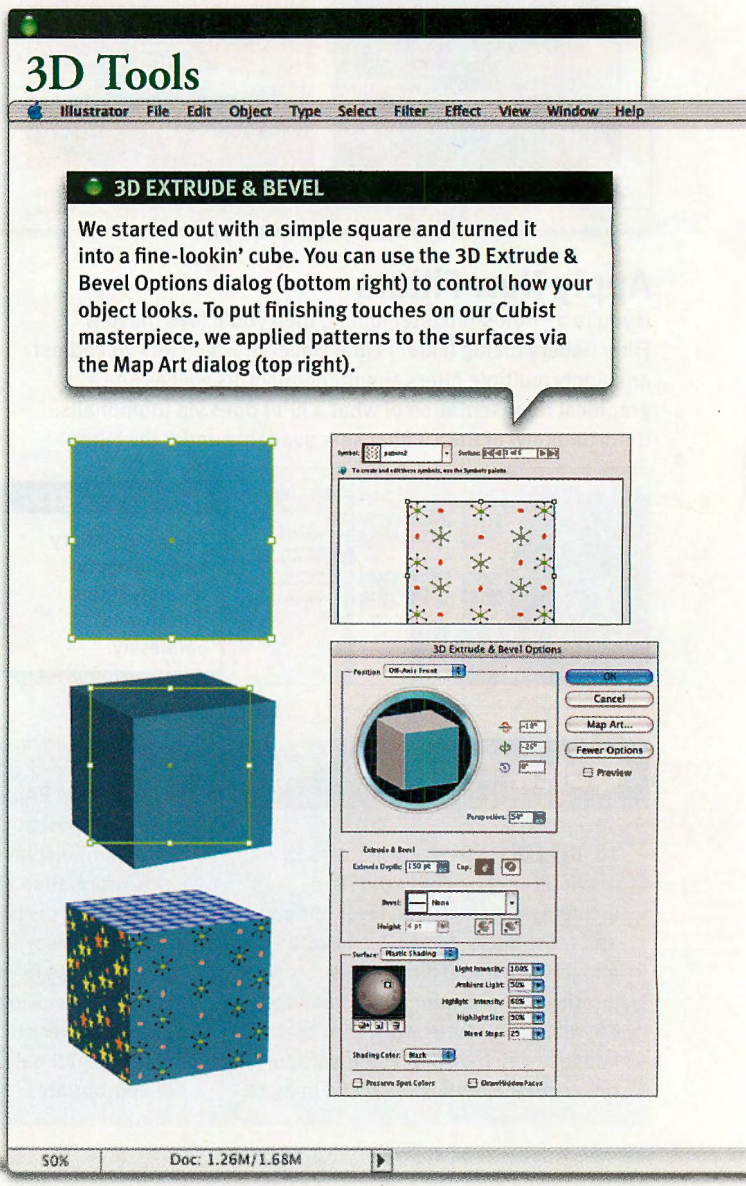
ROTATE The Rotate feature lets you tilt a 2D object so that it appears 3D—good for, say, *Star Wars*–style receding text. To use the Rotate feature, select a text object, an imported image, or a shape you've created, and then choose Effect › 3D › Rotate. Use the controls to create your desired look.

Make Your Text Flow

Adobe has expanded Illustrator CS's text-on-a-path capabilities, with a new Type On A Path Options box and several type special effects. To flow text along a path, create an object—open or closed—using any of the drawing tools. Next, select the type on a path tool under the tool palette's type tool (a T icon) and click anywhere along the edge of the object. Enter the text, highlight it, and then use the Character and Paragraph palettes (Window › Type › Character/Paragraph) to format it.

To modify the appearance of the type and its position relative to the path, choose Type › Type On A Path › Type On A Path Options. Each of the five choices in the Effect menu (such as Rainbow and Stair Step) produce different visual effects, and the options in the Align To Path menu let you move the text up and down relative to the path.

With the selection tool (filled-in arrow icon), you can drag the control points at the beginning, middle, and end of a type path to move the beginning, middle, and end points, respectively; you can also use the type tool while holding down the Command key to do this. Clicking and dragging a control point across the path flips the type. Like type objects, a type path has an in



SCRIBBLE

Theme and variation: Here we created two different scribbled versions of the original artwork (left).

CLOUD ILLUSTRATION BY AMY WU

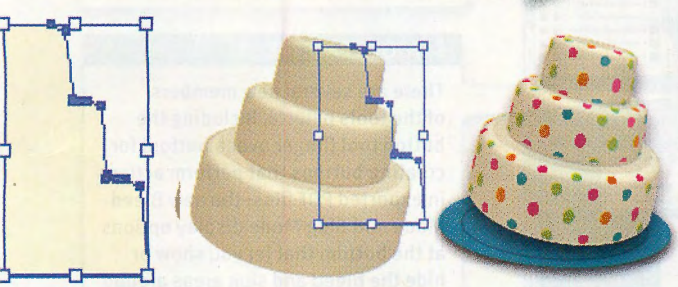
port and an out port—elements that link to other objects or enable you to thread text into and out of a type path.

Learn to Scribble

Even with our poor, computer-strained eyesight, we can usually spot a vector EPS illustration from a mile away. That's because they're generally composed of hard-edged, stiff-looking shapes rather than the loose, flowing shapes artists can produce with a pencil or paintbrush. Illustrator's new Scribble effect changes that by letting you add a loose, hand-drawn, mad-artist appearance to objects. To apply the Scribble effect, choose Effect › Stylize › Scribble. The Scribble Options dialog provides several controls that let you modify the nature and extent of the effect. The best way to get a handle on the controls in the Scribble Options dialog is to check the Preview box, go nuts with the settings, and watch what happens.

3D REVOLVE

It doesn't take an oven and one of those froufrou pastry bags to bake a fancy cake—just use Illustrator's new Revolve feature.



human being is a part of a whole, lled by us 'universe,' a part limited in ne and space. He experiences himself, s thoughts and feelings as something parated from the rest ... a kind of tical delusion of his consciousness. is delusion is a kind of prison for us, stricting us to our personal desires d to affection for a few persons near- to us. Our task must be to free rselves from this prison by widening r circle of compassion to embrace all ing creatures and the whole of nature its beauty."
Albert Einstein

"A human being is a part of a whole, called by us 'universe,' a part limited in time and space. He experiences himself, his thoughts and feelings as something seperated from the rest ... a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty."
—Albert Einstein

3D ROTATE

We started with a boring rectangular text frame and then used the Rotate feature to make it look like the text is receding into the distance.

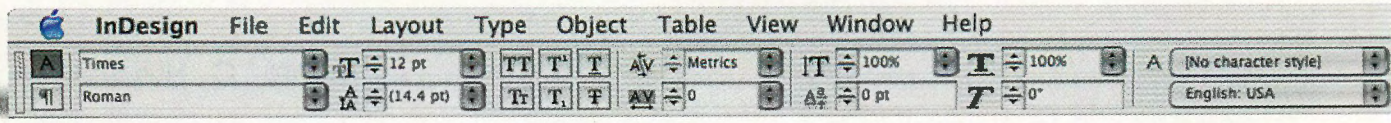
Quick Tips

TEMPLATES Illustrator CS ships with 200-plus templates, including marketing brochures and stationery—and they're not even cheesy! Each time you open a template (File › New From Template; also in the Illustrator › Templates folder), a new, untitled document opens that you can then save. You can also save Illustrator CS documents as templates.

OPTICAL KERNING, OPTICAL MARGIN ALIGNMENT Optical kerning examines character shapes and adjusts the space between them to achieve a snug fit that's consistent with surrounding text. To apply it, highlight text, then choose Optical from the Character palette's kerning pop-up. Optical margin alignment adjusts the position of punctuation and text characters along the left and right margins to give margins a straighter vertical appearance. To apply optical margin alignment to a selected text object, choose Type › Optical Margin Alignment.

OPENTYPE SUPPORT You can use the Glyphs palette (Type › Glyphs) to display either OpenType fonts or non-OpenType fonts, and you can insert glyphs (a fancy-pants term for characters) by double-clicking them. Via the OpenType palette (Window › Type › OpenType) flyout menu, you can set Illustrator to automatically replace standard characters with OpenType alternatives.

WYSIWYG FONT MENU Finally, finding the right font for your piece isn't like trying to shoot a clay pigeon while wearing a blindfold. Illustrator CS's Font menu displays font names using the actual fonts and icons that indicate the type of font—TrueType, PostScript, or OpenType.



InDesign CS Get ready to be awed.

InDesign CS has a seriously impressive set of new features.

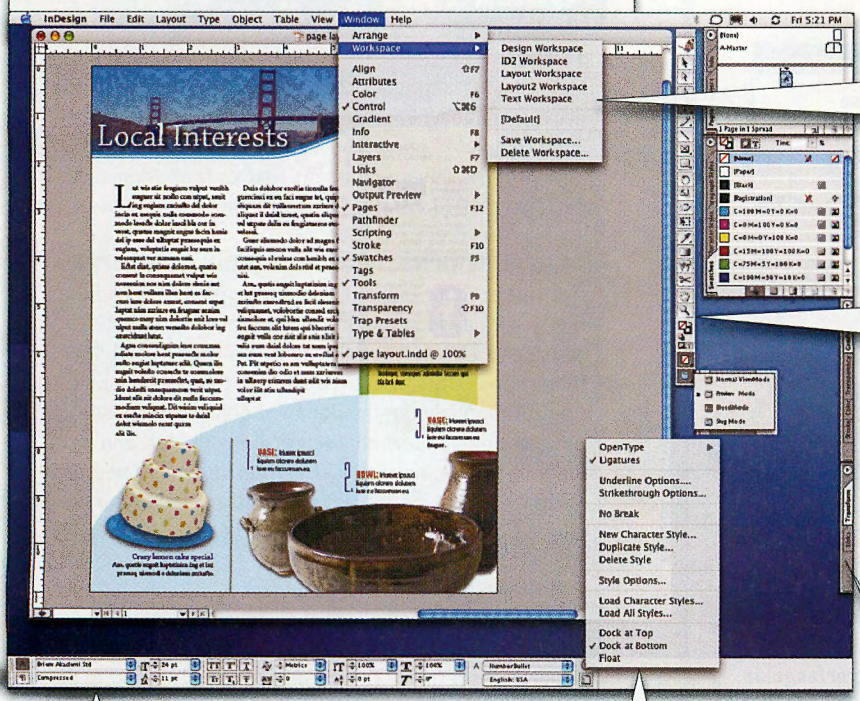
Apply Headers and Footers to Tables

If you deal with long tables, you'll appreciate the option to automatically add headers and/or footers to tables that flow through multiple frames or pages. When you create a new table (Table › Insert Table), you can specify the number of rows at the beginning and end of the table you want for the headers and footers. To add these elements after you've created a table, select the rows at the beginning or end of the table that you want to use for headers or footers, then choose Table › Convert Rows › To Header (or To Footer). InDesign CS automatically takes any changes you make to the master header and footer and applies them to all running headers and footers.

Drop Your Caps and Nest Your Styles

The option to add drop caps to paragraphs is not new to InDesign—but what *is* new is the option to assign a character style to drop caps and to include nested styles within a paragraph. Nested styles are a speedy way to apply complex text formatting by defining character styles and nesting them within a paragraph style. InDesign automatically applies nested styles to your text whenever you apply that paragraph style. Here's how we created a simple nested style with a drop cap (see next page).

The New Interface



WORKSPACES

InDesign CS lets you save a palette arrangement as a named workspace (Window › Workspace › Save Workspace), which you can then open via a menu command or an assigned keyboard shortcut. For example, you could save a workspace that includes the palettes you use when editing text, and another with the palettes you use when working with graphics.

TOOLS PALETTE

There are several new members of the tools palette, including the button tool (finger over a button) for creating buttons that perform actions in exported PDF files; the new Bleed Mode and Slug Mode display options at the bottom that let you show or hide the bleed and slug areas around a page; and the measure tool (under the eyedropper tool) for measuring the distance between two points.

CONTROL PALETTE

The new context-sensitive control palette is similar to the Quark measurements palette. If you select a graphics frame, it displays controls for positioning, resizing, and scaling, among other options. For text frames, a pair of icons at the far left let you switch between text- and paragraph-formatting controls.

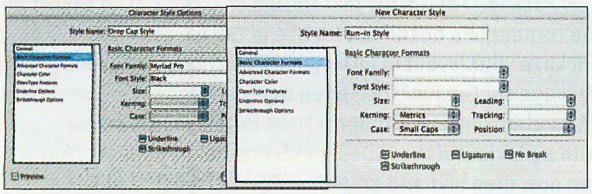
CONTROL PALETTE PREFERENCES

The Dock At Top, Dock At Bottom, and Float commands in the control palette's flyout menu let you choose where you want your palette to appear.

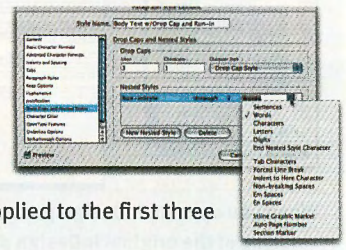
DOCKED PALETTES

Previous versions let you collapse a palette by double-clicking its tab. InDesign CS lets you collapse a palette by dragging its tab to the edge of the screen. From there, you simply click its tab to expand and collapse the palette.

1. CREATE CHARACTER STYLES First you need to create character styles before you can apply them to a drop cap or a nested style. Using the Character Style Options dialog, we created two different character styles called Drop Cap Style and Run-in Style. Note that the Run-in Style uses metric kerning, which helps ensure consistent spacing between mixed fonts and sizes—in this case, between the drop cap and the text that follows.

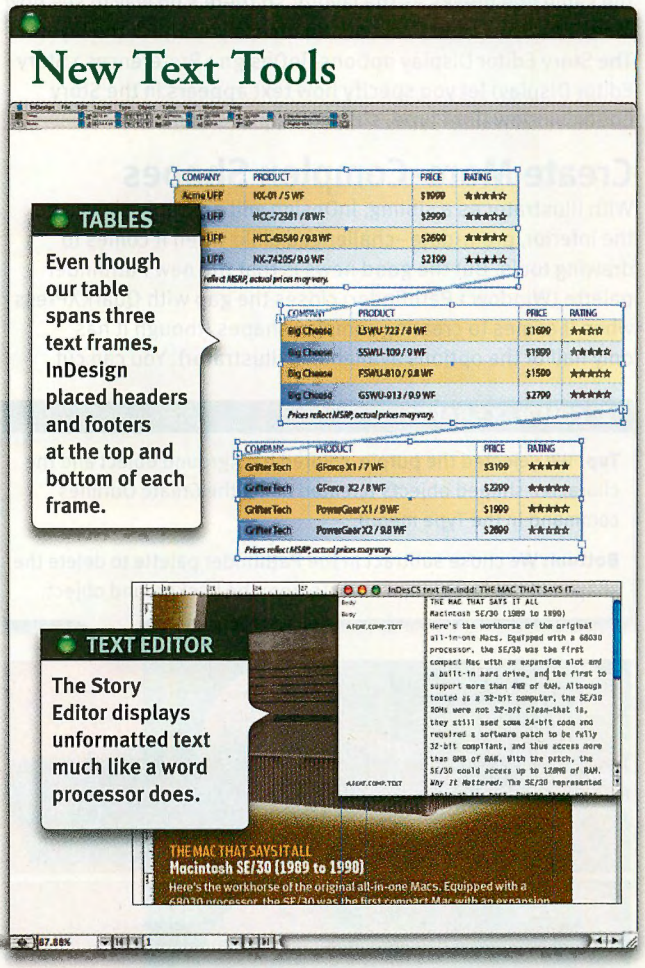


2. PARAGRAPH STYLE OPTIONS Next, you need to bring up the Paragraph Style Options dialog (via the Paragraph Styles palette flyout menu) and display the Drop Caps and Nested Styles pane. We created a paragraph style called Body Text w/Drop Cap And Run-in. We chose Drop Cap Style for our drop cap. We then assigned Run-in Style to a nested style that gets applied to the first three words of the paragraph.



3. APPLY STYLE Finally, we applied our Body Text w/Drop Cap And Run-in paragraph style to this sample paragraph. Note you can also apply a drop cap or a nested style without creating a paragraph style by simply choosing Drop Caps and Nested Styles from the Paragraph palette's flyout menu.

A HUMAN BEING IS a part of a whole, called by us "universe," a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest ... a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restrict-



Edit Text

The new Story Editor is perfect for InDesign users who prefer working with text in a word-processing environment rather than a WYSIWYG environment (aka those annoying editors you work with). Much like the one in PageMaker, InDesign CS's Story Editor (Edit › Edit In Story Editor) displays unformatted text in a separate window. Any changes you make automatically appear in your layout. Unfortunately, the Story Editor doesn't reflect

Quick Tips

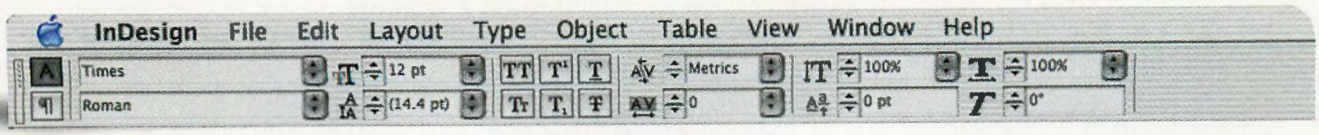
INTERACTIVE PDFS You can place movies, sounds, and interactive buttons in your layouts. When you export to PDF a layout that contains interactive elements, you have the option to include those elements in your PDF.

DOCUMENT PRESETS In the New Document dialog, you can save custom document settings, including page size, margins, columns, and bleed/slug areas.

MIXED-INK SWATCHES Mixed-ink swatches are colors consisting of two or more inks. You can create mixed-ink swatches, as well as groups of mixed-ink colors (using the Swatches palette flyout menu).

BLEED AND SLUG AREAS When you create a new document, you have the option to specify bleed and slug areas for each page edge. Plus, the tool palette offers options for displaying spreads with or without the bleed and slug areas.

SEPARATIONS PREVIEW The Separations Preview palette (Window › Output Preview › Separations) displays a list of all colors used in a document and lets you show or hide individual colors.



the same line breaks as the layout, so there's no way to see how many lines you need to cut or add unless you check the layout. The Story Editor Display options (InDesign › Preferences › Story Editor Display) let you specify how text appears in the Story Editor window (font type, size, color, and so on).

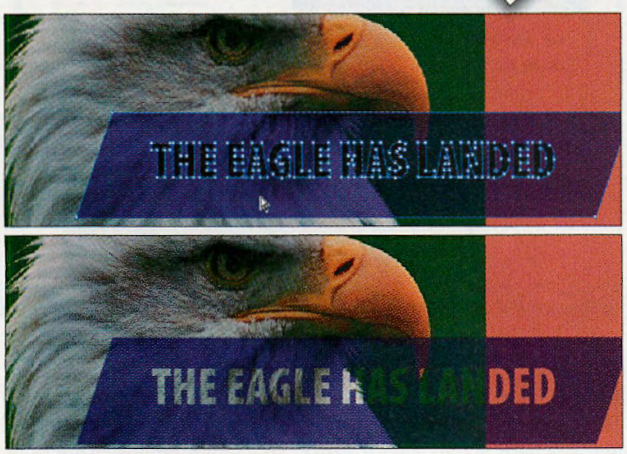
Create More-Complex Shapes

With Illustrator as a sibling, InDesign will probably always be the inferior, prom-date–challenged child when it comes to drawing tools. But the good news is that the new Pathfinder palette (Window › Pathfinder) closes the gap with QuarkXPress when it comes to creating complex shapes (though it has only half of the options available in Illustrator). You can cut out foreground objects from a background object (subtract), combine multiple objects into a single shape (add), create a single path where multiple objects overlap (intersect), subtract all objects from the topmost object (minus back), and subtract areas where multiple objects overlap (exclude overlap).

COMPLEX SHAPES

Top: We selected the purple-colored background object and the character-shaped objects (created using the Create Outlines command in the Type menu).

Bottom: We chose subtract in the Pathfinder palette to delete the shapes of the foreground objects from the background object.



Create Custom Strokes

Previous versions of InDesign included a handful of built-in line styles but no way to create custom styles—pretty lame considering that QuarkXPress has let you create custom line styles for years. Enter the new Stroke Styles feature.

Both the Stroke palette (Window › Stroke) and control-palette flyout menus include the Stroke Styles command. In the Stroke Styles dialog, you can choose the type of stroke you want to create (Stripe, Dotted, or Dash) and specify stroke attributes. Once you create a custom stroke, you can apply it to any object or type, and you can use custom strokes as text underlines and strikethroughs.

GoLive CS

GoLive CS is the Web-authoring component of the Adobe Creative Suite. Here are some highlights of GoLive CS.

INDESIGN PACKAGE FOR GOLIVE If you want to create Web versions of InDesign CS layouts, check out InDesign CS's new Package For GoLive feature, which uses XML to export the content of a document for use in GoLive CS. First package your layout in InDesign CS by choosing File › Package For GoLive. Then open that package in GoLive CS by choosing File › Import › From InDesign. A window with a preview of the InDesign CS document appears. You can now drag text and graphics objects from the preview window onto a GoLive CS Web page.

When you open an InDesign package in GoLive, miniature versions of the original InDesign pages appear in a preview window (left). Drag objects from the preview window to produce a GoLive Web page (right).

SMART OBJECTS GoLive CS's smart objects let you work with native Photoshop, Illustrator, and PDF files within GoLive CS. When you place one of these files into a GoLive CS Web page, GoLive CS creates a new version of the file (a smart object) that's optimized for the Web, maintains a link to the source file, and automatically updates the object whenever you modify the source file. To create a smart object, open the objects palette (Window › Objects), select the smart object tool (the green-square icon), then click and drag one of the smart object icons (smart Photoshop, smart Illustrator, smart PDF, or smart generic) onto a Web page. To assign an image to a selected smart object, go to the Inspector palette (Window › Inspector), click the browse icon (a folder), and select a graphics file. In the Save For Web dialog that appears, specify settings such as file format and image size. Note that any changes you make to a smart object do not affect the source image.

CSS STYLES GoLive CS's brand-new CSS Editor lets you quickly create and preview CSS (cascading style sheets) styles without having to deal with coding. You can apply settings for text, font, box, background, and border attributes and instantly see the results of your changes.

Version Cue

It may not be sexy or creative, but Version Cue is a boon for managing files.

What Is Version Cue?

Unlike the other components of the Adobe Creative Suite, Version Cue isn't going to stimulate your creativity. Rather, it's a system-level file-management utility designed to help individual users and small workgroups manage the files they create with the Creative Suite's graphics applications. In a nutshell, Version Cue lets you save Adobe CS files to a Version Cue workspace—a specially designated folder on your Mac. Once Version Cue has saved a file to a workspace, you and other users in your workgroup can open it, modify it, and save a new revision to the workspace. Because shared files are stored on local hard drives within a workgroup, a dedicated server is not required (and Version Cue takes care of the file-sharing infrastructure—you don't need to turn on Apple's File Sharing).

A few things you should know about Version Cue:

- You don't have to use, enable, or even install Version Cue.
- It's designed for individual users and small- to medium-size workgroups.
- The graphics applications in the Adobe Creative Suite are all mature. Version Cue is just a baby. As with any new technology, you'll want to learn all you can about Version Cue before implementing it. And if you decide to use it, start small and proceed slowly.

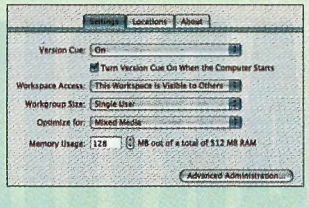
Workgroup Administration

What we cover here barely scratches the surface of what you can do with Version Cue. Setting up Version Cue for a workgroup involves performing some administrative tasks using Version Cue's browser-based administration tool, which you access by clicking the Advanced Administration button in the Version Cue system preferences. The Adobe Version Cue Workspace Administration utility lets you create users and specify their privileges, remove old versions of files, create new projects, and perform advanced administrative tasks, such as modifying Version Cue preferences and exporting projects to another computer.

How to Use Version Cue

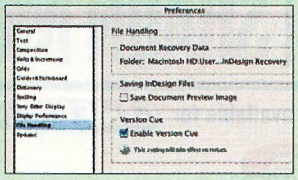
1. SETUP AND LAUNCH IT

To set up and turn on Version Cue, go to System Preferences › Adobe Version Cue. In the Settings pane, tweak options for things like workgroup size, and then turn on Version Cue by choosing On from the Version Cue menu. The Locations pane lets you specify the folder in which Version Cue projects are stored, as well as a backup folder where project backups are stored.



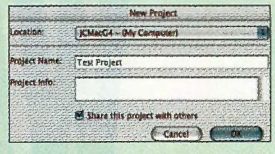
2. ENABLE VERSION CUE

To turn on Version Cue in Photoshop CS, Illustrator CS, and InDesign CS, go to Preferences › File Handling (in Illustrator CS, it's File Handling & Clipboard), and select the check box that enables Version Cue. The change takes effect the next time you launch the application. (Version Cue is permanently enabled in GoLive CS.)



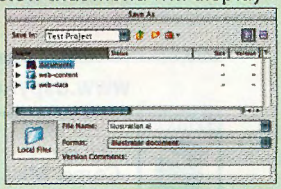
3. CREATE A NEW PROJECT

Now you can create a Version Cue project from any CS app. To do so, open a file, choose Save As, and then click the Version Cue button in the Save As dialog. Choose New Project from the project tools menu (a red toolbox icon). In the New Project dialog, assign a name to the project and, optionally, include information about the project in the Project Info field. If you want to share the file with others in your workgroup, check Share This Project With Others.

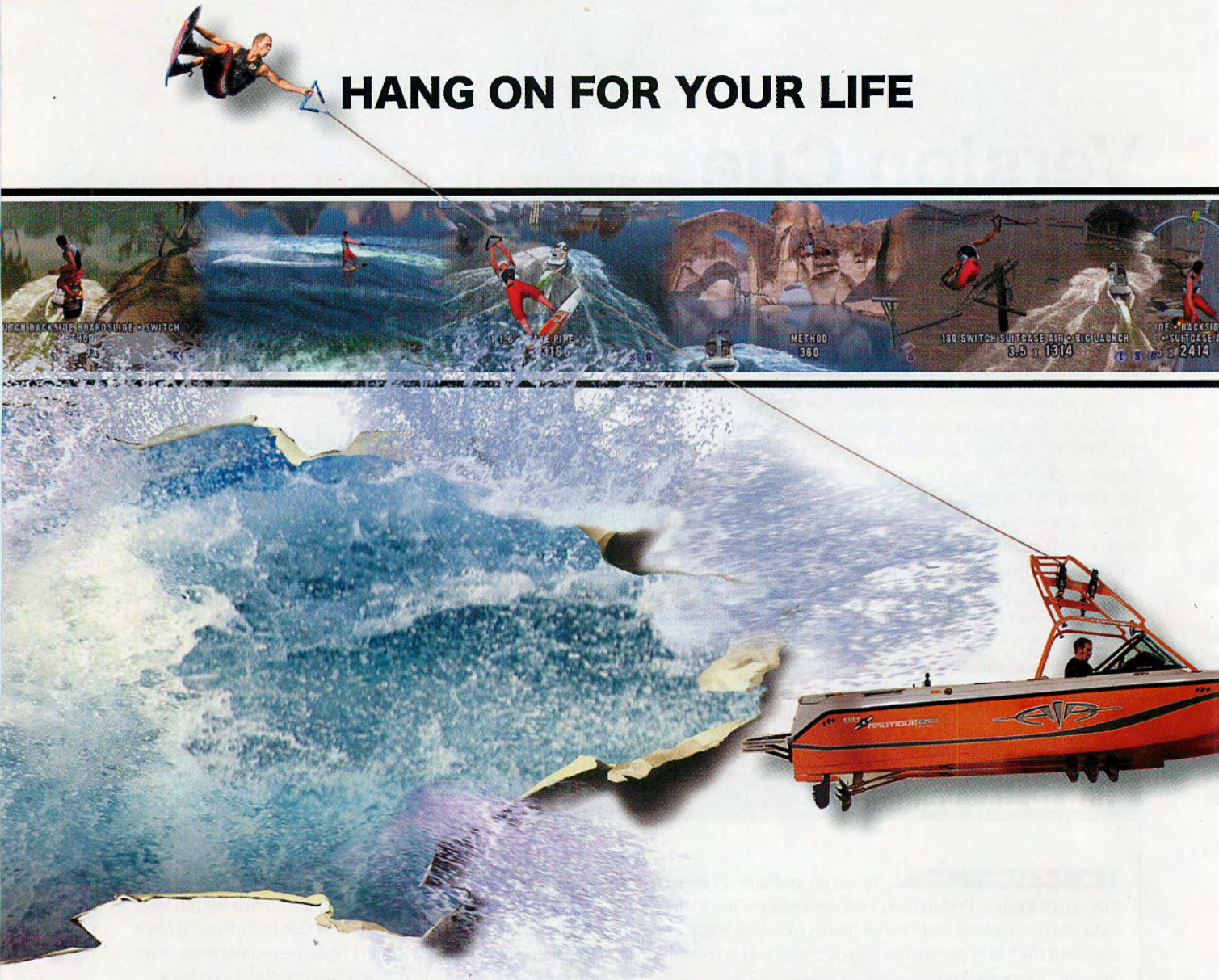


4. SAVE A FILE TO A PROJECT

To save a file to a Version Cue project, choose File › Save As in Photoshop CS, Illustrator CS, or InDesign CS, then click the Version Cue button. Use the folder hierarchy menu at the top of the dialog to locate the project folder. The window below that menu will display your projects—double-click the project you just created. Click Save. (In GoLive CS, you access Version Cue workspaces via the Site Manager.)



John Cruise is a Denver-based writer and trainer who has coauthored books about QuarkXPress and InDesign. Frank Wu is a native San Franciscan who makes his living as a designer. His first computer was an Apple IIc, and his Mac addiction started back in high school with an SE/30.



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MacAddict RATINGS

MacAddict RATED	MacAddict RATED	MacAddict RATED	MacAddict RATED	MacAddict RATED
AWESOME	GREAT	SOLID	SO-SO	LOUSY
You'll be blown away.	You'll be impressed.	You'll be satisfied.	You'll be disappointed.	You'll be pissed off.

White as ever, the new iBook (shown here) has attained G4 status and is more joyous than ever to use, thanks to its reinforced keyboard and slot-loading optical drive. What can you do with such a swank digital hub? We loaded up the songwriters' reference tool MasterWriter and wrote a little ditty. We then added some MIDI musical accompaniment using the Ozone keyboard, burned it for posterity on EZQuest's latest external DVD burner, and used ADS Technologies' Pyro A/V Link to pipe a copy to VHS for our techno-challenged friends. Never ones to slack, we also designed a disc label, jewel-case insert, 50 pages of liner notes, and a concert poster in Adobe Photoshop and InDesign CS. In the near future, we'll road test the rest of Adobe's new Creative Suite: Illustrator and GoLive.

This**Month:**

60 Another War *role-playing game*
59 Bluetooth Wireless Optical Mouse *input device*
58 Boa Slim DVD-RW/CD-RW *optical drive*
49 Eudora 6.0.1 *email application*
52 EverQuest *massively multiplayer online role-playing game*
56 Graphire3 *6 by 8 drawing tablet*
51 i860 Photo Printer *five-color inkjet printer*
42 iBook G4 *notebook*
46 InDesign CS *page-layout software*
55 MasterWriter *songwriting tool*
59 MicroHub *USB 2.0 hub*
57 Nostromo n52 SpeedPad *gaming controller*
53 OneTouch 250GB *FireWire backup drive*
59 Ozone *USB audio/MIDI device*
50 PDR-5300 *5-megapixel digital camera*
44 Photoshop CS *image-editing software*
58 Pyro A/V Link *DV converter*
48 Scanjet 4670 *scanner*
43 Toast 6 Titanium *CD- and DVD-burning software*
54 Tungsten T3 *Palm OS–based PDA*
55 Warrior Kings *real-time strategy game*
54 Wireless Keyboard and Mouse *input devices*
60 Zoo Tycoon *simulation game*

PLUS:

The**Hot**List

62 The best of the best from recent reviews.

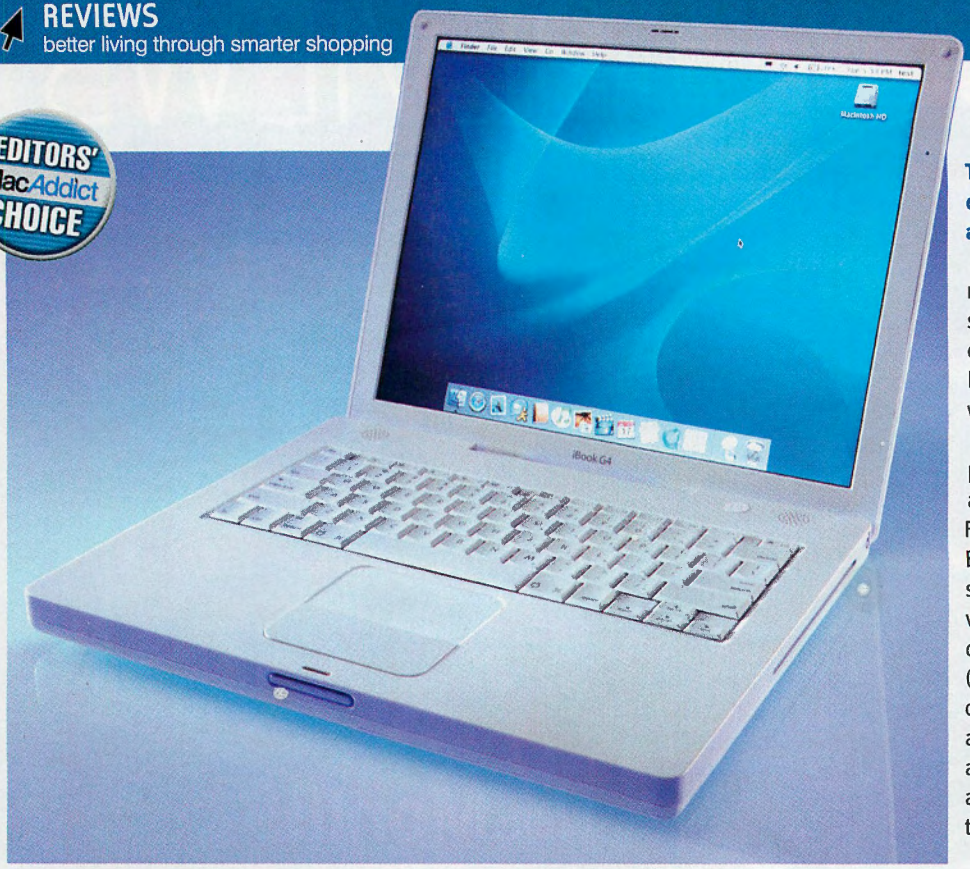
Compatible with Mac OS X or later.

Compatible with Mac OS 9 or earlier.

EDITORS' MacAddict CHOICE

We'd spend our own hard-earned money on this product.

EDITORS' MacAddict CHOICE



PHOTOGRAPH BY MARK MADEO

The Keyboard and relocated optical drive are two of our favorite things about the G4 iBook.

iBook G4

NOTEBOOK

Just as we were pondering the future of the iBook—the last of the G3-based Macs—Apple unveiled an all-new line of them, two with 12.1-inch screens, one with 14.1 inches, and all packing G4 processors: 800MHz, 933MHz, and 1GHz, respectively. And they're cheap: $1,499 for the top-of-the-line 14-incher reviewed here, and a paltry $1,099 for the 800MHz model. The catch? The iBook is unflinchingly a consumer machine. It lacks pro trappings such as

The iBook is back—in G4 form—and it's whiter than ever.

FireWire 800 and Gigabit Ethernet, has no build-to-order SuperDrive option, and—the real hamstring—comes with low RAM (256MB) with a slightly twisted upgrade path to the minimal maximum, 640MB.

As a consumer machine, the iBook still rules. The most apparent and welcome structural change is the keyboard: A metal-reinforced backside and redesigned AirPort-card holder underneath make it much more solid than any previous iBook keyboard. It's nice and rigid, with responsive keys, and it's much less likely to bow up and mar the screen as we've seen on previous iBooks. The internal surfaces—including keyboard keys, palm rests, trackpad, screen border, and lid hinge—are a new shade of off-white. We prefer the metallic gleam of previous iBooks, but we'll get used to the new look. The exterior, which was formerly clear plastic painted white underneath, is now solid white and gives the outside more of a glossy luster than previous models.

We appreciate Apple's decision to keep SuperDrives out of iBooks; not everyone needs to burn DVDs. What we don't appreciate is that while you can downgrade the 933MHz and 1GHz models to a plain-old CD-RW drive (thereby reducing the cost by $100), there's no such option on the 800MHz model. The optical drive has also changed, from the old side-mounted tray loader to a side-mounted slot loader, which is the best of both worlds: It means no disc tray to worry about snapping off, and no fear of your belly blocking a front-loading slot as tends to happen with PowerBooks.

You now get two USB 2.0 ports, but the iBook's other ports are essentially unchanged: one FireWire 400, 10/100 Base-T Ethernet, V.92 modem, 1/8-inch stereo audio out, and Apple's mini video-out port, to which you can connect the included VGA adapter (alternately, you can spring for the optional Composite- and S-Video adapter for $19). What you can't attach to an iBook's video port is a DVI or ADC monitor: It's VGA or the highway.

Besides the new G4 processor, and faster DDR (dual data rate) RAM, upgrades include AirPort Extreme support ($99 card not included) and an updated ATI Mobility Radeon chipset (the 9200) with the same 32MB of SDRAM as the previous generation. One notable downgrade is the 256K Level 2 cache—all iBooks released in the past two years have been loaded with double the L2—this looks like another forced difference to protect PowerBook sales.

All models come with 256MB of DDR266 SDRAM. This is a mixed blessing, given that half of it is soldered onto the motherboard and the other 128MB fills the 'Book's lone RAM slot—if you choose to upgrade later, you orphan the original 128MB module. The moral: Spare a DIMM, and buy your iBook with the fattest available (512MB) module in that slot. With 640MB of RAM, this sucker's relatively fast.

For the price, we can deal with the iBook's limitations—it's still supertough and superportable, and it's even sexier than before. Long battery life, superior AirPort reception, preinstalled Mac OS 10.3 (Panther), and a ton of less-tangible little things make this book our choice in consumer notebooks.—*Niko Coucouvanis*

COMPANY: Apple
CONTACT: 800-795-1000 or 408-996-1010, www.apple.com
PRICE: $1,499 (14-inch)

SPECIFICATIONS: 1GHz G4, 133MHz system bus, 256K Level 2 cache, 256MB RAM, 40GB Ultra ATA hard drive, 14.1-inch TFT XGA display, 32MB ATI Mobility Radeon 9200 graphics.

GOOD NEWS: It's a G4 iBook! Awesome keyboard. More rugged than a PowerBook.
BAD NEWS: Low RAM. Limited video-out and optical-drive options. Slightly chunkier than a PowerBook.

MacAddict RATED
GREAT

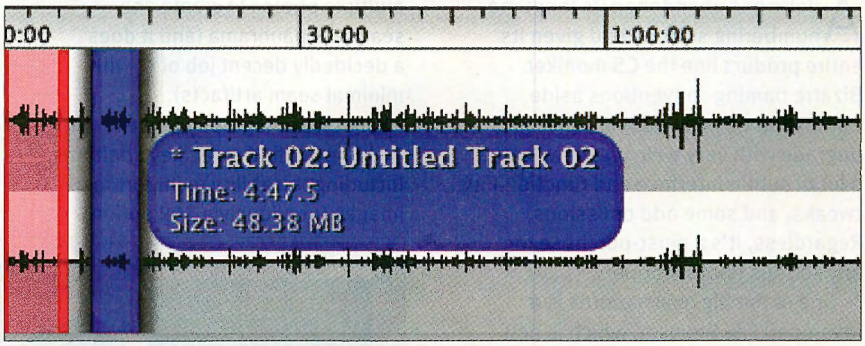
Toast 6 Titanium

CD- AND DVD-BURNING SOFTWARE

From the time Apple rolled native CD and DVD burning into the Mac OS and its iApps, disc-burning utilities such as Toast have had to try a little harder to earn their keep in the consumer disc-authoring world. Toast is still the go-to app for projects the Mac can't do on its own (such as making Video CDs that are friendly with consumer DVD players), but the value of Toast 6's new features is dubious at best: rudimentary DVD authoring, burning over a network, and burning content live as it streams into your Mac from a DV camera.

New features in version 6 also include compression and encryption for your data discs, automatic generation of DVD, VCD, and SVCD video discs, Plug & Burn direct-to-disc video capture from DV cameras, and a number of other improvements. Incremental and scheduled backups—courtesy of the bundled Déjà Vu app—are handled via a preference pane. Contextual Menu support is the handiest new feature, as it lets you Control-click any file or folder icon to, as the menu item says, "Toast It"—i.e. burn that file or folder to disc. Also included is Roxio's OS X–compatible upgrade of CD Spin Doctor, a handy app that facilitates vinyl-to-digital conversion of your music collection.

The new Rendezvous-enabled ToastAnywhere feature seems like a cool idea—it can burn your data onto a CD, regardless of whether or not you're in the same room as the burner (you can even burn via the Internet if you're so inclined). However, unless you have a self-loading disc burner, someone has to load the disc into the remote burner and take it out again when the burn is complete. If you're dead set on toasting over Ethernet, you'll be happy to know that ToastAnywhere's setup is painless and in our tests remote burning worked without a hitch. Plug & Burn worked fine as well, and although it was handy for simply archiving raw video footage straight from our camera, most of the time you'll want to tweak or edit your footage before burning it to a disc.



Sure, your Mac can burn CDs, but Toast's included CD SpinDoctor app gives it a capability not provided by Mac OS X: audio-waveform editing.

Toast 6 also adds DVD authoring, which allows you to drop a handful of QuickTime-compatible video files into Toast and whip out a DVD that's friendly with consumer DVD players. Sadly, the DVD-authoring options are limited and the automatically generated DVD menus are bland. You can set chapter markers at fixed intervals (such as every minute or every 5 minutes), or you can import iMovie projects, and have Toast automatically create chapter markers at the points you've specified in your iMovie project. Given the choice, we'd use Apple's iDVD because of its greater flexibility and superior integration.

Toast's new DVD authoring capability makes us appreciate Apple's iDVD more than ever.

If you like to pack every byte into a burn, you may wish to hold off on Toast. Toast 6 doesn't support *overburning*—writing more data on a disc than it's rated for. Toast will also refuse to make copies of copy-protected discs—great if you're an RIAA member, but not if you want to make a lawful backup of an important disc.

In the big picture, Toast is still a rock-solid app that provides disc-burning functions your Mac can't do on its own, and that some of us can't live without. Version 6's new features, however, though implemented reasonably well, aren't compelling enough to warrant upgrading—especially considering that the only upgrade deal offered to registered Toast users is a $20 rebate. Also, because Apple includes built-in disc-burning capabilities in most modern Macs, and most external burners come bundled with Toast Lite, CharisMac's Discribe, and/or proprietary DVD-authoring software, Toast is often redundant.

—Paul Yoon

COMPANY: Roxio
CONTACT: 866-280-7694, www.roxio.com
PRICE: $99.95

REQUIREMENTS: G3 or later, Mac OS 10.2 or later, 200MB disk space, QuickTime 6, CD or DVD recorder, recordable CDs or DVDs

GOOD NEWS: Painless burning. Automatic DVD authoring. Shiny interface.
BAD NEWS: New bells and whistles of questionable value. Few expert options.

MacAddict RATED ●●●●○ SOLID

Photoshop CS

EDITORS' MacAddict CHOICE

IMAGE-EDITING APPLICATION

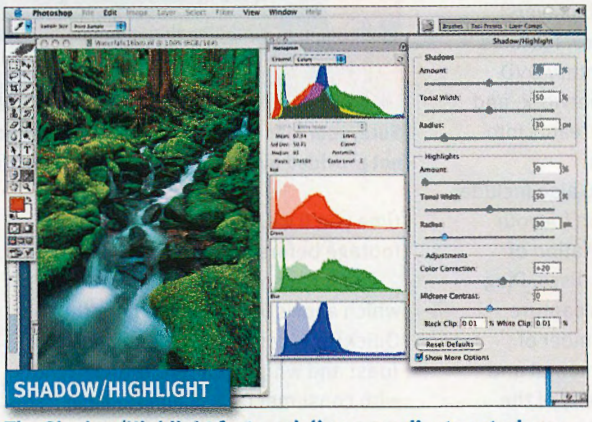
Adobe has abandoned its longtime numbering scheme and given its entire product line the CS moniker. Bizarre naming conventions aside, Photoshop CS is a relatively strong upgrade with very welcome new tools, a lot of subtle interface and functionality tweaks, and some odd omissions. Regardless, it's a must-purchase for any serious Photoshopper.

One of the big new features is a revamped File Browser, which is now much more of a utilitarian image manager than ever before. In addition to organizing thumbnails by rank, you can now rearrange images by dragging them where you want within the File Browser. Plus, you are no longer limited to the five ranking levels available in version 7—just type in your desired rank level, including combinations of characters and numbers. The flag button allows you to tag single or multiple images and then view by flagged files, independent of rank assignments. You can also set the File Browser to display previews for both PDF and EPS files, a very welcome addition for those working with page-layout and illustration software. Most batch-processing commands, such as Web Gallery and Contact Sheet II, are now available directly from within the File Browser. (For more info on Photoshop CS's File Browser and other features, see "Get Creative with Adobe Creative Suite," p29.)

Finally, Photoshop has full 16-bit support for layers and brushes.

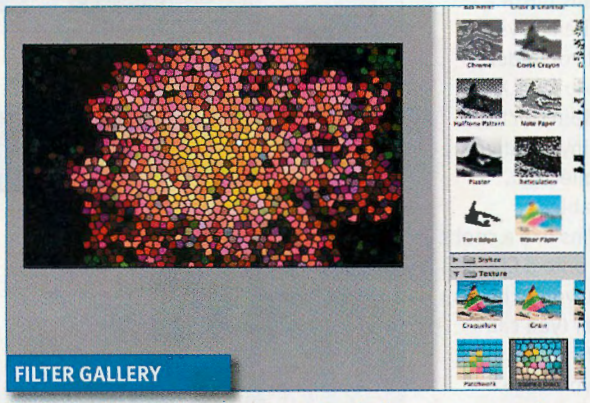
Speaking of automation, the Picture Package command is significantly better—if you've always wanted to customize the layouts, you'll be thrilled. Plus, there are two new automation features: PDF Presentation and Photomerge. PDF Presentation makes it easy to create PDF-based slide shows of selected images, and Photomerge automatically stitches together multiple photos to create one seamless panorama (and it does a decidedly decent job of it, with minimal seam artifacts).

Digital photography fanatics will be happy to find some key additions, including the ability to import raw images (previously a $99 option), as well as the cool new Shadow/Highlight feature, which gives you a wonderful way to selectively adjust tonal values in the darker and lighter regions of an image. It's a real pity that Adobe didn't implement Shadow/Highlight as an Adjustment Layer (like most of Photoshop's other color correction tools) so that the adjustment doesn't affect the source image. An even bigger disappointment is that you can't apply any filter to an image as a nondestructive Adjustment Layer (a feature available in After Effects).



SHADOW/HIGHLIGHT

The Shadow/Highlight feature delivers excellent control over the tonal values of an image. The revamped Histogram palette is also quite useful.



FILTER GALLERY

While the Filter Gallery is very cool and allows you to preview and apply multiple filters simultaneously, it only works with a subset of Photoshop's overall filter set—and the least useful of the bunch, to boot.

Another new feature is the Photo Filter Adjustment Layer, which allows you to create subtle color shifts that closely emulate real-world lens filters. Cool but not awe-inspiring—you could accomplish this before by creatively using solid color layers, transfer modes, and opacity. One real boon is the implementation of full 16-bit support for layers and brushes, as well as text (in previous versions, many tools only worked with 8-bit images).

The Match Color command is an effective way to take the overall color of one image and move it toward the chromatic values of another image—useful for processing multiple images before compositing them together. Along the same lines, the color replacement brush does a decent job of picking up colors from anywhere and painting those colors onto an image while retaining brightness and detail. This delivers a nice rendition of the Photoshop Elements red-eye reduction brush—useful for anyone doing substantial color retouching in textile and fashion design. Text on a

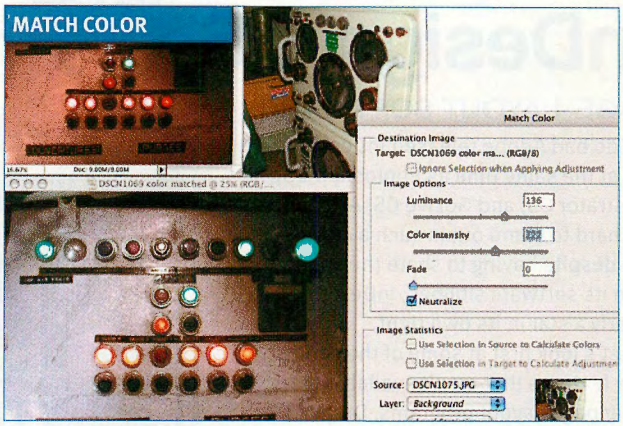
COMPANY: Adobe
CONTACT: 800-833-6687, www.adobe.com
PRICE: $649 (full), $169 (upgrade)

REQUIREMENTS: Power Mac G3 or later, Mac OS 10.2 or later, 192MB RAM (256MB recommended), 320MB disk space

GOOD NEWS: Excellent customization tools. Much improved File Browser. More-extensive 16-bit support.
BAD NEWS: No printed manual. No filter layers. New Shadow/Highlight tool not available as Adjustment Layer.

MacAddict RATED ●●●●● GREAT

The File Browser has some lovely improvements, including a Search command and the ability to customize the size of the preview.



Match Color helped us match the picture in the upper left to the picture in the upper right to create the image on the bottom.

path is a long overdue feature and is solidly implemented.

There are also some subtle additions for professional color fiends, such as the new Histogram palette, which displays individual color channels and the values for selected areas. If you often have to account for all the work you put into fixing an image, the History Log keeps an incredibly detailed log of everything you do in Photoshop. If you've ever needed this capability, you'll be thrilled. And we love the Keyboard Shortcuts dialog, where you can customize menu shortcuts, tool hotkeys, and palette menu items—even the ones that don't have any keyboard-command equivalents.

While it's incredibly frustrating to not have an actual printed manual provided in the box, Photoshop's online documentation is complete and searchable. Photoshop still has room to grow, but overall, CS is a worthy upgrade. If you use Photoshop on a regular basis, you'll want this revision yesterday.—*David Biedny*

Three award-winning products • Now available in one powerful package

DATAX Backup
DATAX Recycler
DATAX Rescue

Data Safety Suite
Backup, Undelete and Recover your valuable data

Data Safety Suite is your best protection against data loss.
Judge for yourself. Download a fully functional demo today at www.prosofteng.com/dss

PROSOFT engineering inc.
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MacReviewZone.com Data Backup
Macwelt Wertung 1,9 MACUP MacReviewZone.com Data Recycler
Editors' Choice Applelinks Data Rescue

Data Safety Suite is available at Apple Store Fry's macZONE ClubMac MacMall COMPUSA.com or call 1877-4PROSOFT

InDesign CS

EDITORS' MacAddict CHOICE

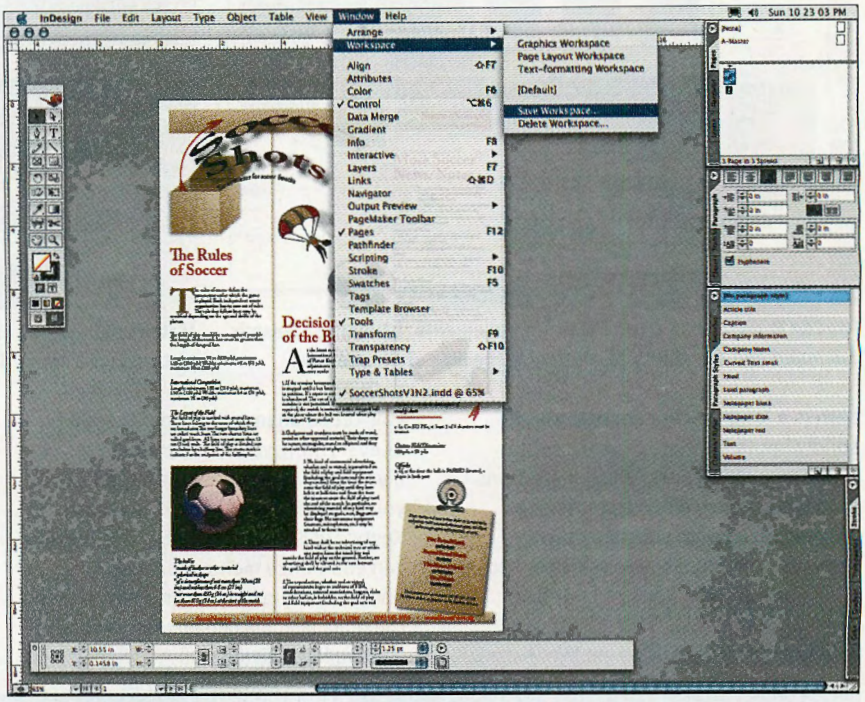
PAGE-LAYOUT SOFTWARE

Too bad Adobe released InDesign CS at the same time as Photoshop CS, Illustrator CS, and GoLive CS. After all, it's hard to stand out in such a crowd. But despite having to share the spotlight with its software siblings, InDesign CS is clearly a star in its own right.

Let's look first at some of the coolest new features that aren't available in other page-layout programs. Drop caps aren't new, but the ability to automatically apply a character style to drop caps is. This means you don't have to manually highlight and format drop caps (as you do with QuarkXPress). A nested style lets you format the beginning of a paragraph differently from the rest of the paragraph—useful for, say, quickly applying a different font and color to the first two or three words of a paragraph. But that's just the beginning—you can apply many different character styles in succession as part of a paragraph style. (For more on creating nested styles and using other new features, see "Get Creative with Adobe Creative Suite," p29.)

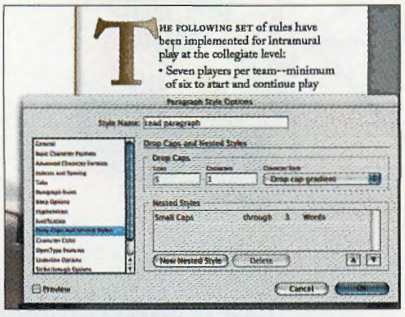
The Separations Preview palette is also a welcome addition, letting you soft-proof color documents onscreen by displaying single or multiple plates. The palette also lets you specify an ink limit, and then highlights areas that exceed that limit. For example, you could set the ink limit to 280, since maximum coverage on a standard web offset press is 280 percent. If you use the Desaturate Black option, InDesign displays black objects as gray so you can see where they overprint underlying objects.

In InDesign 2, you had to manually add headers and footers to each page of a multipage table, and then pray to the design gods that you wouldn't have to edit the table and cause text to reflow. InDesign CS lets you designate a row to use as a header or footer, and then automatically places that row at the top or bottom of the table on each subsequent page. If changes cause the table to reflow, the headers and footers will remain intact.

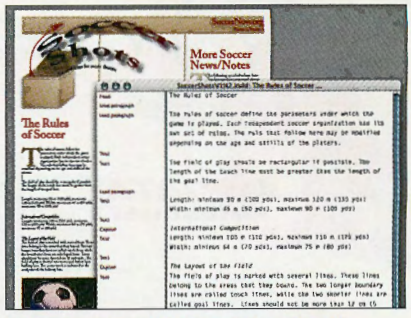


Note the interface improvements, including the control palette (bottom), custom workspaces, and the ability to dock palettes along the edge of the screen.

One problem with earlier incarnations of InDesign was that hordes of palettes were inclined to take over your desktop. InDesign CS fixes that problem in a big way. First off, the new context-sensitive control palette means you no longer have to clutter your screen with multiple palettes. Think of the control palette as the Quark measurements palette on steroids. For example, it offers style sheets, fitting options for text and graphic frames, and stroke options (width and style). You can also dock palettes to the edge of your screen to save desktop real estate, and you can save workspaces—for example, you can create one workspace that displays the palettes you use to format type and



Nesting styles in InDesign's Paragraph Style Options dialog makes it easy to automate complex paragraph styles.



When you use the Story Editor to edit text, your changes immediately appear in the layout.

COMPANY: Adobe
CONTACT: 800-833-6687, www.adobe.com
PRICE: $699 (full), $169 (upgrade)

REQUIREMENTS: Power Mac G3 or later, Mac OS 10.2 or later, 128MB RAM, 350MB disk space

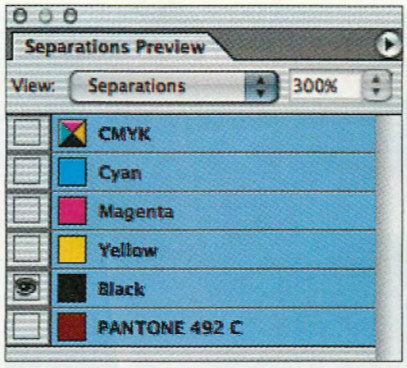
GOOD NEWS: Broad set of new features. Much-needed interface enhancements.
BAD NEWS: Can't export HTML or InDesign 2–compatible files. Still lacks a few useful QuarkXPress features.

MacAddict RATED ●●●●○ GREAT

another that displays the palettes you use to modify graphics.

Although InDesign 2 had many features Quark still doesn't have, such as transparency capabilities and full OpenType support, it also lacked a bunch of useful features present in Quark. Fortunately, InDesign CS plugs most of the holes. For instance, InDesign CS lets you create multi-ink swatches (the equivalent of multi-ink colors in Quark), and in the spirit of one-upmanship, offers the ability to create groups of mixed-ink swatches, whereby each swatch in a group uses a different combination of the mixed colors. InDesign CS also lets you create custom line styles a la QuarkXPress 4 and later, as well as use custom line styles for rules above and below paragraphs (available in Quark) and for underlines and strikethroughs (not available in Quark).

Despite its impressive list of new features, InDesign CS does have a few blemishes. For one, you can't save files



The Separations Preview palette lets you display any number of color plates, such as only the black plate.

in InDesign 2 format, which means that if you supply native InDesign CS files to your vendors, they'll need InDesign CS to open and print the files (then again, you can always export PDF files to provide to your vendors). Also unfortunate is that Adobe has axed the option to export documents as HTML (available in previous versions). If you need to convert the content of your layouts to HTML, you'll have to either export the document as XML or use the Package for GoLive feature, which turns your layout into XML files that you can use in GoLive CS. Also, while the ability to import native Illustrator and Photoshop files is nice, you can't work with Photoshop layers. Even Quark lets you do this with the help of third-party Xtensions.

Other shortcomings: You can't save different-size pages within a document, modify kerning and tracking tables, or create lists based on character styles (only paragraph styles). Also, InDesign CS won't insert new pages automatically when you manually fill an automatic text box. All of these features are available in Quark.

But even with our quibbles, InDesign CS is one fine update. If you're an InDesign 2 user, updating to InDesign CS is a no-brainer. Its new features put it head and shoulders above its predecessor—and far above the competition.—*John Cruise*

The Scanjet 4670 looks great, but a wonky transparency adapter and required AC-power supply detract from its elegance.

PHOTOGRAPH BY MARK MADEO

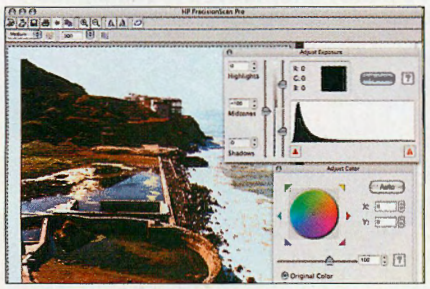
Scanjet 4670

SCANNER

Clearly a showcase scanner, the Scanjet 4670 seems designed for admiration as much as use. The scanner itself is only about an inch deep with a see-through top and can rest in an angled stand when you're scanning flat material. You can pick up the top and place it flat upon anything you feel like scanning—or that you don't feel like lifting. But while we were excited to invent wacky uses for it, we couldn't come up with many situations in which its versatility would pay off—scanning our floor or desktop? Paintings on our wall? Kitty-kitty? It sure looked cool sitting on our desk, though.

The 4670 eats up less than half of the traditional flatbed scanner's footprint, however its polycarbonate top kept sprouting greasy fingerprints. Further defiling the sleek look of the scanner is a none-too-dainty AC adapter that comes in the box—we'd prefer USB bus power.

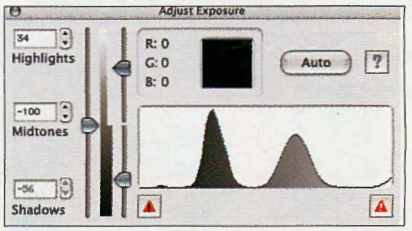
Upon installation and reboot, the HP Director application appeared in our dock, uninvited. We would have just poofed it out of the Dock and been done with it, but the little jerk reappeared every time we rebooted. *Très gauche.* It wasn't until we contacted HP that we found out we had to move or rename the app (/Applications /Hewlett-Packard/HP Photo and Imaging Software/HP Photo and Imaging Director) to prevent the autolaunching (and Dock invasion)—easy enough, once we found out the secret.



The 4670 handles routine scanning just fine...

HP's slim scanning sensor produced good results scanning a variety of source materials and lived up to its claimed speed with 6-second previews and 45-second 4-by-5-inch scans at 600 dpi. At top resolution (2,400-by-2,400-dpi optical), however, our 4 by 5 took over 45 minutes to scan. The 4670 supports all major image formats from GIF to TIFF and 48-bit color, and its optical resolution is fine enough to create crisp, 300-dpi prints at 8 by 10 inches. But we got unpredictable results when we ventured into Imaging Director's scan adjustments, particularly when using custom exposure settings. A software update from HP made it a little better, but we were advised that the HP PrecisionScan Pro software doesn't yet fully support Mac OS 10.3.

Nearly every transparency adapter we've ever seen seems expressly designed to help you scratch, fingerprint, or otherwise abuse your negatives during a scan, and HP's TMA (Transparent Materials Adapter) ranks pretty high on the likely-to-muck-up-your-slides scale. The magnet that holds the door closed on your film is a bit too aggressive, and the whole TMA apparatus is awkward to use. As is often the case, the scanning window is a little smaller than a frame of 35mm film, so if you want full-frame images from your transparencies, you might look into getting a dedicated film scanner or the like.



...but once you start messing with the scanner's exposure settings, all bets are off.

The 4670's slick look, respectable resolution, and good scan quality under normal conditions nearly redeem its AC-power dependency and clumsy transparency adapter. For the price, utilitarians can get better resolution and transparency support in an uglier scanner, but this one will look great in your office.—*Paul Yoon*

9

COMPANY: HP
CONTACT: 800-752-0900, www.hp.com
PRICE: $199.99

REQUIREMENTS: USB-equipped Mac, Mac OS 9.1 or 10.1.5 or later

GOOD NEWS: Looks cool. Quick previews and scans. Easy to scan stuff that's bolted down.
BAD NEWS: Begs to get smudged or broken. Wonky transparency adapter. Not down with Panther.

MacAddict RATED
SOLID

Eudora 6.0.1

EMAIL APPLICATION

With the exception of some new icons and a stashable Mailbox Drawer, Eudora 6 looks and works very much like every Eudora since version 4. This is a very good thing for the Eudora-faithful—this latest version is still spry and gentle on system resources, gobbling major chunks of processor muscle only when checking or filtering mail. Eudora's main new features are under the hood: handy SpamWatch junk-mail detection and the hapless Content Concentrator—which doesn't seem to know content from a hole in the ground.

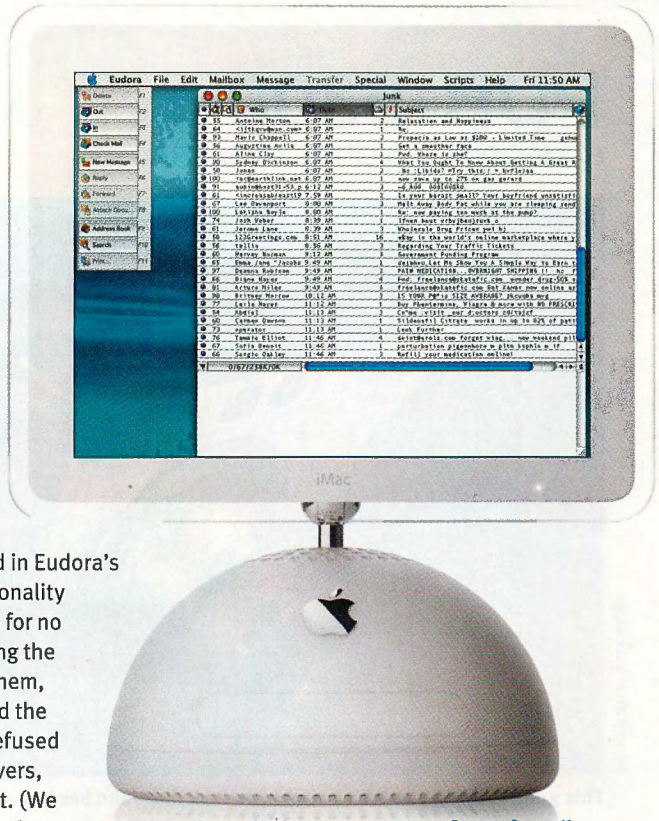
SpamWatch is Eudora's intuitive built-in Bayesian spam filter. A Bayesian filter uses artificial intelligence techniques to identify spam based on the spam you previously received. SpamWatch is surprisingly nimble and analyzed 400 of our junk emails (to learn what we consider spam) in less than half a minute on a 366MHz iBook. The problem with Eudora's spam control, however, is that it's not very flexible—for example, you can't run a different Eudora filter ahead of SpamWatch.

This is a very good thing for the Eudora-faithful.

Content Concentrator works like our lazy Uncle Joe—that is, it doesn't work at all. The idea is to condense long back-and-forth emails by replacing chunks of quoted replies—typically identified by special characters (›) or indenting—with one word: *snip*. Sounds handy, but in our testing, Content Concentrator often ignored the quoted reply and instead snipped new content that it incorrectly identified as quoted. Finding quoted content can't be all *that* difficult. In short, Content Concentrator is best turned off.

Eudora has its share of bugs, new and persisting ones, especially in handling *Personalities*—Eudora's term for email-account settings. We couldn't import three of our eight Personalities from Eudora 5.2. In one case, Eudora 6 lost a Personality's user name yet persisted in looking for that Personality's mail on manual checks even though we'd left Check Mail On Manual Checks unchecked in Eudora's Preferences. Another Personality was corrupted a few times for no discernible reason. Deleting the Personalities, recreating them, and restarting Eudora fixed the problems. Once, Eudora refused to connect to any mail servers, then crashed when we quit. (We connected without a hitch after relaunching Eudora.)

Possibly the worst aspect of Eudora is its tech-support policy. You are allowed only six support calls during the twelve months immediately following your purchase—and if phone support can't help, and you request a refund within 30 days of registration, Qualcomm will withhold $35 from that refund to pay for that call. That's almost three-quarters the price of the software! Earth to Qualcomm: This policy sucks!



PHOTOGRAPH COURTESY OF APPLE

Spam is the most-common form of email these days, but Eudora 6 does a decent job of keeping it out of your in-box.

Small bugs and stingy tech support aside, Eudora is still a solid email program, especially for those of us who send and/or receive lots of email and need complex filtering and filing options. Despite its flaws, Eudora 6 is a reasonable upgrade.—*Mary E. Tyler*

ON THE DISC
Eudora 6.0.1

SLAMMIN' SPAMMIN'

After priming SpamWatch with 400 known spams, we set it loose on our in-box and observed how it handled our next 2000 incoming messages, almost half of which were spam.

The good news is that SpamWatch outperformed server-based solution SpamAssassin (free/open source, www.spamassassin.org), which is notorious for falsely flagging good email as spam. But with average accuracy in the low 90-percent range, SpamWatch isn't as good as our preferred third-party spaminator, SpamSeive 2.0 ($25, www.c-command.com/spamsieve).

Because SpamWatch is a Bayesian filter, there should be fewer mistakes as its training progresses. However, other Bayesian filters reach peak performance (98- to 99-percent accuracy) long before scanning 2000 total messages. SpamWatch will probably continue to underperform slightly, but even so, its ruthless destruction of unwanted email has us partying like it's prespam 1989.

COMPANY: Qualcomm
CONTACT: www.eudora.com
PRICE: $49.95 (see Web site for versions and upgrade pricing)

REQUIREMENTS: Power Mac, Mac OS 9 or later, Internet access, POP3 OR POP4 email account

GOOD NEWS: Large-volume mail handling. Convenient Bayesian spam filter.
BAD NEWS: Loses personalities. Slightly unstable. Phone-support policy stinks.

MacAddict RATED
SOLID

PDR-5300

5-MEGPIXEL DIGITAL CAMERA

PHOTOGRAPH BY MARK MADEO

This good-looking camera can help you look like—and become—a better photographer.

Toshiba's newest 5-megapixel digital camera, the PDR-5300, is a stainless-steel beauty with a well-rounded balance of advanced features and point-and-shoot simplicity.

Beginners may not need all the PDR-5300's features at first but will grow into this camera's aperture and shutter priority settings, manual exposure, and other advanced controls faster than they think. When you use the dedicated preset modes—Portrait, Action, and Night Scenes—the camera automatically picks the best exposure settings for the scene, and displays those settings onscreen so you can begin to get an understanding of how exposure works in different situations. Not interested? Then just choose Automatic or Program mode and fire away; the 5300's 35mm to 105mm (35mm equivalent) zoom lens captures great results on autopilot.

A versatile, reliable camera that's easy to use.

When in shutter or aperture priority mode, a wheel on the side of the camera lets you quickly set your choice so you don't have to use onscreen menus or remember what to press on a multifunction rocker switch, as you do on other cameras. There's a generous range of apertures (f-2.8 to f-11) and shutter speeds (8 to 1/1500 seconds) to work with as well.

The camera does have a few quirks. The 1.5-inch LCD monitor, while bright, tends to flicker slightly, especially in low-light conditions. Also, to reduce shutter lag (the time between your pressing the shutter-release button and the actual shutter release), the PDR-5300 constantly adjusts its focus on the subject, even when you're not framing a shot, which puts additional stress on the rechargeable Li-Ion battery—you'll definitely need a spare (a pricey $50). After replacing the 5300's paltry 16MB SD memory card with a 128MB SanDisk card ($69.99, www.sandisk.com), we shot 55 images, draining the battery to half-power—we had the flash and LCD activated about half of the time.

The PDR-5300's image quality is respectable. Sharp, colorful, 11-by-14-inch prints emerged from our Epson Stylus Photo 2200 printer ($699, www.epson.com) with minimal artifacts showing. The advantage of a high-megapixel camera is not that you can print humongous pictures (you'd need a big-bucks, wide-format printer for that), it's that you can crop bits and pieces from an image and still maintain high-enough resolution for smooth-looking photos.

Our PDR-5300 occasionally overexposed bright scenes, but this failing was easily corrected by setting the camera's exposure compensation control a few notches to the minus side. We've run into the same problem with other, more-expensive digital cameras.

The camera has the obligatory video output (NTSC and PAL) and can shoot movies with sound, sound-annotate still images, run slide shows, do time-lapse photography, capture images at four different resolutions (each with three quality settings), zoom in and around images using the LCD display to check details, and much more. Shot-to-shot time is about a second and image playback is virtually instantaneous.

PHOTOGRAPH BY ARTHUR BLEICH

The PDR-5300 tends to overexpose brightly lit scenes, such as this one. **Setting the exposure compensation to -1.0 easily corrected the problem.**

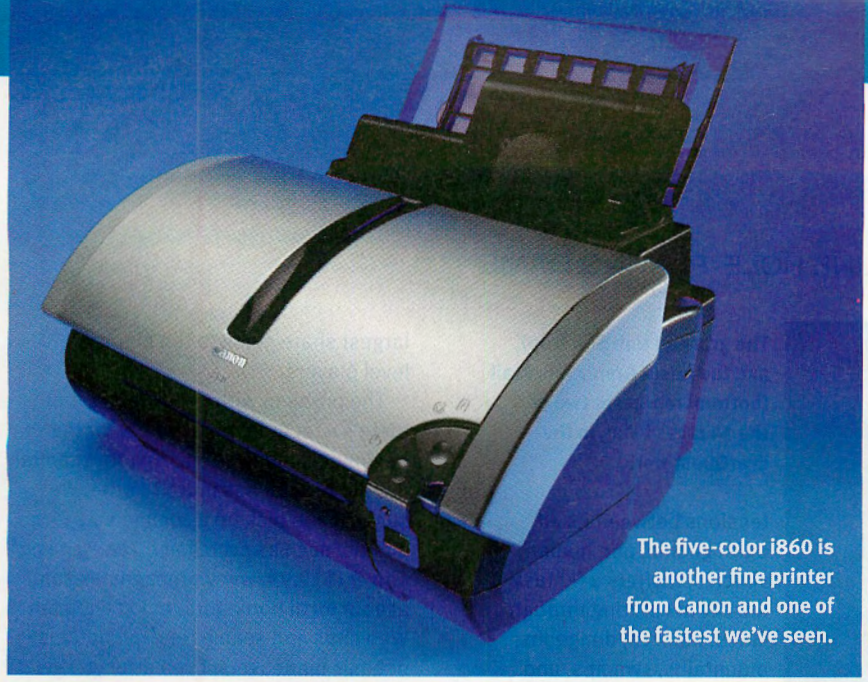
Toshiba's PDR-5300 is a versatile, reliable camera that's easy to use—a solid performer in every way. At $350, it's also a great value.—*Arthur Bleich*

COMPANY: Toshiba America
CONTACT: 800-829-8318, www.toshiba.com/taisisd/dsc
PRICE: $349

REQUIREMENTS: USB-equipped Mac, Mac OS 8.6 to OS X

GOOD NEWS: Feature-rich without being overwhelming. Good control layout. Understandable manual. Excellent value.
BAD NEWS: Wimpy 16MB memory card. Pricey extra battery. Bright scenes sometimes overexposed.

MacAddict RATED
GREAT



The five-color i860 is another fine printer from Canon and one of the fastest we've seen.

PHOTOGRAPH BY MARK MADEO

i860 Photo Printer

FIVE-COLOR INKJET PRINTER

Photo printers keep evolving, sprouting more and more ink colors, paper-delivery options, and image-file input options. Canon's i860 is a prime example. It includes a smart auxiliary tray for snapshot-size paper, a USB port up front for direct-from-camera printing, and a new color—Photo Black—that delivers improved sharpness and contrast in color prints but doesn't cure the printer's other minor flaws (slight color banding in gradients and color-tainted black-and-white prints).

Setting up the i860 is predictably easy: Plug in the printer, insert the ink tanks, attach the printer to your Mac, install the driver, and restart. That's it—and it's all picto-graphed out for you in the quick-start guide. The included CD also includes Easy-PhotoPrint, ImageBrowser, and PhotoStitch software. While the printer isn't worth buying solely for the sake of this software, each app has a function or three we might use: Easy-PhotoPrint prints out contact-sheet style indexes of multiple photos; PhotoStitch combines photos to create seamless panoramas; and ImageBrowser offers basic photo-manipulation tools.

In action, the i860 impressed us with blazing-fast print speeds: Borderless 4 by 6 prints flew out a hair faster than the claimed 50 seconds—the same photo blown up to a top-quality borderless 8.5 by 11 print took a respectable seven and a half minutes. The prints look good, exhibiting excellent sharpness overall, though shaded areas were slightly muddy. Color in photos was remarkably accurate, but our printer torture test

After a long printing session, the i860's Printer Utility told us no ink had been used. It was fibbing.

(a full-page black-to-white gradient) exhibited the same pink-to-purplish blushing we've seen in black-and-white prints from most mid-range color inkjets. (HP's Photosmart 7960 is an exception—it uses a new photo-gray color to fill in gray areas where other photo printers resort to slipping in a little color.) Our biggest complaint with

The i860 impressed us with blazing-fast print speeds.

the i860's print quality is that it showed some *banding*—noticeable steps in gradient between light and dark areas of the print.

The i860's removable 4-by-6-inch photo tray slips in front of the standard paper feeder so you can keep up to 20 sheets of glossy media at the ready for printing snapshots. Just twist the large dial on the smaller tray to lower it into position, and it will take over from the main paper tray. Considering the flimsy paper trays we've seen on other printers lately (such as on the aforementioned HP Photosmart 7960), the i860's sub-size paper adapter is a joy to use and easy to remove.

There's a grand total of two buttons on this printer: one for power, and one to tell the printer to stop printing or to resume printing after an error (the errors show up as alerts on your Mac). The familiar BJ Print Utility handles print-head maintenance and other utilitarian functions, such as displaying the amount of ink left in each cartridge. After printing about thirty 4-by-6-inch images, two-dozen 8.5 by 11 prints, and a dozen 5 by 7s at full quality, the utility software's ink levels appeared full. In reality, however, each tank was about half empty—but that's a respectably dainty ink appetite. The driver is otherwise quite congenial, offering familiar image-adjustments like Vivid Color, paper type, print quality, color balance, and brightness. We might use these adjustments when printing directly from a camera (which this printer supports), but we're not capable of color-adjusting photos without a visual preview. Call us old school, but we still do most (OK, all) of our printing from our Mac, not a camera or memory card.

You can find less expensive photo printers, but the i860 is speedy, frugal with ink, and prints great color and good text. And if you can deal with a little color in the few black-and-white photos you print, it's a great printer choice.

—Niko Coucouvanis

COMPANY: Canon
CONTACT: 800-652-2666, www.canon.com
PRICE: $149.99

REQUIREMENTS: USB-equipped Mac, Mac OS 9.1 or 10.2.1 or later, Bubble Jet Direct– or PictBridge-aware camera (for computerless printing)

GOOD NEWS: Fast print speeds. Creates quality color prints. Doesn't hog ink.
BAD NEWS: Some banding in gradients. Color tints black-and-white prints.

MacAddict RATED GREAT

EverQuest

MASSIVELY MULTIPLAYER ONLINE ROLE-PLAYING GAME

The graceful Nah Shir (top), and the grisly Grenix Mucktail (bottom) represent two of the 14 races living in the EverQuest world.

After selling two million copies and engaging 400,000 habitual players, EverQuest has finally come to the Mac. But as the saying goes, good things come to those who wait: The Mac edition contains not only the original classic game, but also four expansion packs: Ruins of Kunark, Scars of Velious, Shadows of Luclin, and Planes of Power.

The game takes place in Norrath, a huge world with five sprawling continents, each crammed with secret societies, political ideologies, and religious cults, and poisoned by racial tensions between its elf, ogre, gnome, and human species. It offers a fantasy life of adventuring through cities, palaces, dungeons, mountains, swamps, and deserts—all kinds of eerie landscapes in more than 70 distinctive areas.

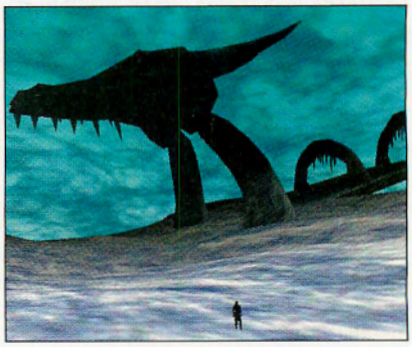
As usual with role-playing games, creating your character is paramount. First you choose from 14 races (including barbarians, trolls, and the tigerlike Nah Shir), and then you pick a class from the 15 available (including rogues, rangers, clerics, magicians, and wizards). Each race has a different starting city, and each class has attributes you learn to exploit as you gain experience.

You begin as a nobody—no experience, no armor, no friends. You build your character slowly by undertaking quests, engaging in combat, earning currency, bartering, and trading. The fastest way to gain experience is through combat, but it's still a slow process. Expect to die often. Death isn't permanent, but it comes at a cost; you lose experience points every time you die and have to make a long trek to retrieve your belongings from your corpse.

Teamplay is encouraged, and if you want to survive it's all but mandatory. Find yourself a few trustworthy online friends and go adventuring together. Experience points are split between members of your party, with the largest share going to the highest-level players.

The problem with EverQuest is that there's a lot to learn, and help for the beginner is minimal—neither the manual nor the tutorial has much to offer. We suggest you pick up a commercial manual such as *EverQuest: The Planes of Power* ($19.99, www.primagames.com) at your local bookstore, or log on to fan Web sites and search for explanations of basic maneuvers. Even after you get going, you're still not out of the woods—navigation is difficult, and it's easy to get lost. Until you learn the navigational ropes, leaving your city to face the wild is tantamount to suicide.

EverQuest is not for the casual player, as it requires a massive commitment of time and patience. Don't expect weekend escapism, with a few hours hacking monsters and collecting gold.



EverQuest landscapes are eerie, beautiful, and peopled with strange critters.

You need days and weeks just to build up your character to a level high enough to survive in the wilderness.

However, even with its slow start, EverQuest is enormous fun—and enormously addicting. The fantasy worlds of EverQuest are rich, complex, and marvelously compelling. The first month of online play is free—and it's just enough time to hook you. After that, there's a monthly fee of $12.95, so enter at your own risk.—*John Lee*

COMPANY: Sony Online Entertainment
CONTACT: 858-537-0898, www.everquest.com/mac
PRICE: $49.99

REQUIREMENTS: G4 or faster, Mac OS 10.2.4 or later, 256MB RAM, 32MB video card, Internet connection

GOOD NEWS: Hugely popular multiplayer online game comes to the Mac. Includes four expansion packs. Imaginative. Addictive.
BAD NEWS: Frustrating lack of information for beginners. Difficult learning curve.

MacAddict RATED
SOLID

OneTouch

250GB FIREWIRE BACKUP DRIVE

Maxtor's OneTouch backup system creates backups at the touch of a button, but configuring it to create *bootable* backups—the kind we recommend—takes some additional work. Once you modify the settings appropriately, the OneTouch works great for bootable backups. The problem is that you'd never figure out how to do it from Maxtor's mediocre manual.

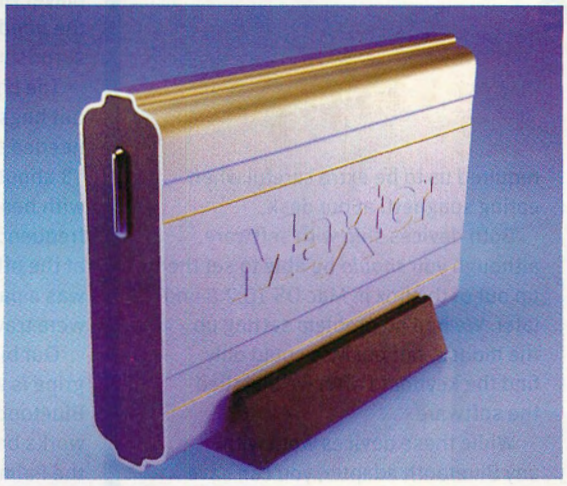
The Maxtor OneTouch 250GB FireWire Drive for Mac includes a silver 7,200-rpm FireWire 400 drive, a stand, and a CD containing Dantz's Retrospect Express backup software. Install the software and press the glowing blue button on the front of the device to invoke the OneTouch Setup wizard, which breezes you through choosing your backup source, destination, and files. So far so good.

Unfortunately, you can only use the Maxtor wizard to back up documents and applications; you can't use it to create a bootable backup of your drive. Don't look to the manual's chapter 4 instructions, "Backing Up Your System," for the solution—this chapter tells you how to create a compressed archive of your full drive that your Finder can't read, so you'd need to use Retrospect's Restore function to get at your data.

Retrospect Express *can* create a bootable backup disk using its Duplicate (not Backup) feature, but the process is convoluted and the manual doesn't explain it.

To do so, we created a new script to duplicate (not back up) our Mac's hard drive to the Maxtor drive. We then deleted the original Maxtor OneTouch script and pressed the drive's button to invoke the Setup wizard and assign our newly created bootable backup script to the OneTouch button. Pressing the button again backed up our drive.

For some reason, Maxtor put our backed up files in a folder on the drive, so our Mac Startup Preference couldn't see it as a bootable drive. To fix this glitch, we went back into Retrospect's Script window and edited the Maxtor OneTouch script to back up to the root level of the drive, not to that backup folder. Rerunning the script (yes, this was a pain), made a bootable backup.



PHOTOGRAPH BY MARK MADEO

Maxtor's 250GB OneTouch Drive works great once you figure out how to set up your desired configuration.

Having to delve into Retrospect's less-than-intuitive interface to create this bootable backup is more than we wanted to do for a product advertised as "OneTouch." That said, it works solidly and a hair more conveniently than buying the drive and backup software separately, so we're calling it solid. We're also being nice.

—Narasu Rebbapragada

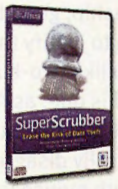
COMPANY: Maxtor
CONTACT: 800-262-9867 or 408-894-5000, www.maxtor.com

PRICE: $349.95
REQUIREMENTS: FireWire-equipped Mac, Mac OS 9.1 to 9.x or 10.1.2 to 10.1.5 or 10.2.4. or later

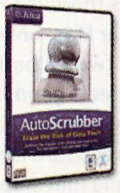
GOOD NEWS: Attractive. Full featured. High capacity.
BAD NEWS: Default settings don't let you create a bootable backup. Crappy manual.

MacAddict RATED ●●●●○ SOLID

Got New Hardware?



Permanently remove data from your old Mac with **SuperScrubber's** military-strength disk sanitization.



And now use **AutoScrubber** to protect the data on your new Mac every day.

ERASE THE RISK

MacAddict RATED ●●●●○ GREAT | design ●●●●● | MACFORMAT | macHOME ●●●●●

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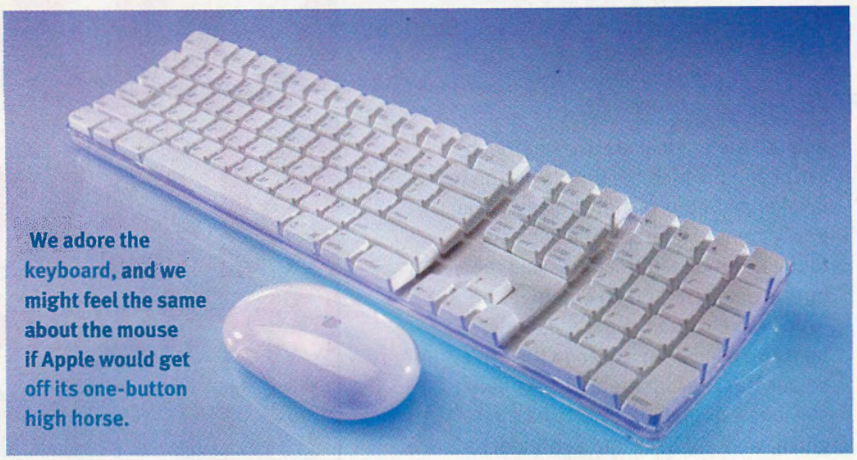


We adore the keyboard, and we might feel the same about the mouse if Apple would get off its one-button high horse.

Wireless Mouse and Keyboard

INPUT DEVICES

If you want to live in a Pottery Barn world, Apple's Bluetooth keyboard and mouse are the most stylish, attractive wireless peripherals you can add to your setup. But like any long-term relationship, good looks alone aren't enough to justify the investment.

If you like two-button mice, forget about this one, as Apple continues to insist that one button is better (we respectfully disagree). In fact, the Bluetooth mouse is almost exactly the same as the wired mouse that comes with your Mac, only heavier because it houses two AA batteries. All in all, the mouse feels good in your hand and the tracking is fantastic.

Apple continues to insist that one button is better than two.

The keyboard is also a wireless clone of the one that ships with current Macs, requiring four AA batteries. Like the wired version, we love the look and feel of the keyboard, although the white keys required us to be extra careful when eating spaghetti at our desk.

Both devices ship with software, although you *should* be able to set them up out of the box in Mac OS 10.2.8 and later. We had no problem setting up the mouse, but our Mac could only find the keyboard after we installed the software.

While these devices work with any Bluetooth adapter, you can save yourself a trip to anger-management class by using either your Mac's built-in Bluetooth or the D-Link DBT-120 (rev. B2 or later) adapter. Those two options allow you to run the included firmware update—crucial if you want to avoid "connection lost" errors and problems with reconnecting after waking from sleep. The update also allows you to boot from a CD using the keyboard. While that functionality worked great, the mouse lost its connection in CD boot mode—once we turned the mouse off and then on again, it reconnected.
—*Cathy Lu*

COMPANY: Apple
CONTACT: 800-692-7753, www.apple.com
PRICE: $69 each (sold separately)
REQUIREMENTS: Mac with internal Bluetooth or external D-Link USB Bluetooth Adapter (DBT-120, rev. B2 or later), Mac OS 10.2.6 or later

Mouse

MacAddict RATED ●●●●○ SOLID

GOOD NEWS: Beautiful design. Great tracking. Reduces cords.
BAD NEWS: One button. A few connection quirks. Expensive.

Keyboard

MacAddict RATED ●●●●● GREAT

GOOD NEWS: Nice feel. Gorgeous design. Reduces cords.
BAD NEWS: Setup a bit flaky.

Tungsten T3

PALM OS–BASED PDA

With a supersize 320-by-480-pixel color display that lays out in portrait or landscape modes, a 400MHz Intel XScale processor, and 64MB of internal memory, the redesigned Tungsten T3 has a lot to offer. However, it falls short on battery life and Bluetooth connectivity.

The T3 manhandles Word, Excel, and PDF files with the included Documents To Go software; low-resolution QuickTime movies played on the bundled Kinoma player without skipping, as did MP3s on the bundled Real Player. Sound quality is surprisingly loud and clear.

The big color screen is beauteous but hogs power: We needed to charge the T3 about every day with heavy use. This frequency is no biggie at the office, but it was a pain when we were traveling.

The Tungsten T3 gets a thumbs up for its new design and bigger screen.

PHOTOGRAPHY BY MARK MADEO

Our biggest gripe is with the Bluetooth. While it works better than in the Palm Tungsten T (see *Reviews*, Feb/03, p43), it's not seamless. (To be fair, no Bluetooth devices we've tested so far have operated seamlessly.) However, we had fun transmitting documents and images from the T3 to our Mac, and the Quick Connect feature, which sends phone numbers via Bluetooth to your cell phone, is handy.

Despite its battery and Bluetooth issues, the T3 is the best Tungsten to date. Thumbs up for this reasonably priced PDA.—*Narasu Rebbapragada*

COMPANY: Palm
CONTACT: 408-400-3000, www.palm.com
PRICE: $399
REQUIREMENTS: Mac OS 9.1 or later or Mac OS 10.1.2 to 10.2.6

GOOD NEWS: Attractive. Large, crisp display. High capacity.
BAD NEWS: Inconsistent Bluetooth. Clunky charger.

MacAddict RATED ●●●●● GREAT

Warrior Kings

REAL-TIME STRATEGY GAME

In the medieval fantasy world of Warrior Kings, you play Artos, a man falsely accused of heresy by an army of followers of the One God. After the hordes murder your duke father and burn your home to cinders, your become consumed by bloodlust and revenge. Vengeance can be yours—if you have the patience to play this game.

In order to get to the good stuff in Warrior Kings, you must endure long loading times, a disjoined storyline, a clunky and dated interface, and painfully slow gameplay. The maps are huge: On one hand, you can take advantage of the vast terrain (for example, archers get a bonus for firing from high vantage points), but on the other hand, waiting for siege equipment or Heavy Infantry to cross dozens of scale miles is tedious. You can speed up the game, but in doing so you can lose control of your forces in battle.

ON THE DISC
Warrior Kings 1.0 demo

The fun of this game lies in building your Imperial (religious) or Pagan (irreligious) army and economy so you can crush your foes using force, strategy, divine (or unholy) intervention, and other tactics. Don't like Imperials? Blow up your church and put up a maypole. Rush your economy into a renaissance to develop sciences for building siege weapons. If you have a good hold on your people, build a Statue of the Imperial Archangel or Wickerman (the Pagan equivalent). Pray and sacrifice, then summon either an angel or a demon for your army to follow to glory, razing enemy villages along the way. Such epic conquests are what Warrior Kings is all about, but getting to the good parts is an epic unto itself.

—Matt Osborne

Embrace your pagan tendencies in Warrior Kings—party 'round the

COMPANY: Feral
CONTACT: www.feral.co.uk
PRICE: $49.99

REQUIREMENTS: 500MHz Mac, Mac OS 9.1 or 10.1.3 or later, 128MB RAM, 750MB drive space

GOOD NEWS: Solid multiplayer mode. Get to sacrifice peasants to summon a giant demon.
BAD NEWS: Detached story. Ugly interface. Long load times. Slow gameplay. Few online players.

MacAddict RATED
SO-SO

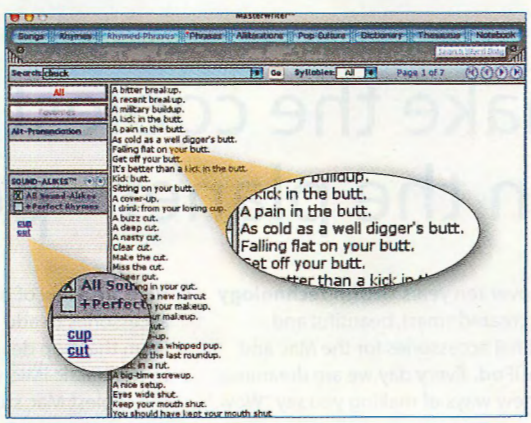
MasterWriter

SONGWRITING TOOL

MasterWriter is an easy-to-use conglomeration of handy songwriting tools—and is as sexy as a database can get. Included are the massive American Heritage Dictionary, Roget's Thesaurus, a rhyming dictionary with over 100,000 entries, 250 QuickTime MIDI drum loops, and a basic stereo hard-disk recorder for those moments when you feel like humming a tune. Think of MasterWriter as your muse—that rare songwriting friend that doesn't drink all your beer or hit on your fiancé.

Worthy of the most ink are MasterWriter's rhyming and phrase dictionaries. Type in a word you want to rhyme, and you get choices of primary, secondary, and pop-culture rhymes. Entering *chew* gave us primary selections such as *taboo* and *beaucoup*, secondary selections such as *kung-fu* and *seppuku*, and pop-culture selections such as *Scooby Doo* and *Subaru:* We can work with this. Less inspirational is the Rhymed Phrases function—fire it up, and you get canned responses like *something borrowed, something blue*, or *bid you adieu*. But with concentrated effort, you can get good results. We also found MasterWriter useful for brainstorming titles, headlines, and other creative types of wordplay.

The real drag with MasterWriter is its price. At $289, *affordable* isn't the first word that leaps to mind. It's hard to put a price on inspiration, but here's a shot: Depending on what floats your boat, for $289 you can get approximately 29 rhyming dictionaries, 12 cases of beer, 14 CDs, a three-day cruise in the Bahamas, or...you get the drift. Choose your inspiration wisely.—*Kent Carmical*



MasterWriter provides plenty of inspiration, but good results depend on your discretion in using it.

COMPANY: MasterWriter
CONTACT: 866-848-8484, www.masterwriter.com
PRICE: $289

REQUIREMENTS: 500MHz G3 or faster, Mac OS 9.2.2 or 10.1.5 or later, 128MB RAM, microphone, QuickTime 6.0.2 or later

GOOD NEWS: Great defibrillator for the creative process.
BAD NEWS: Obscenely expensive. Occasionally cheesy.

MacAddict RATED
SO-SO

Graphire3

6 BY 8 DRAWING TABLET

We've happily used Wacom tablets for years, but the new Graphire3 rubbed us the wrong way—literally.

The Graphire3, like its predecessors, is a pen, mouse, and tablet package designed for general use. It doesn't provide the same pen sensitivity and smooth movement that Wacom's more-expensive Intuos line does—but if you're not a fine artist or graphics professional, you probably won't care. The Graphire3 comes in two sizes: 4 by 5 inches and the new 6 by 8 incher, which we tried out. You also get to choose from three Pottery Barn–esque colors: Sapphire Blue, Pearl White, and Graphite Gray.

The biggest change is in its writing surface—the Graphire3 features a clear acrylic overlay (instead of the usual smooth, flexy plastic), which makes sliding your hand across the tablet a bumpy ride. The overlay is Wacom's new photo-frame feature, which is useful if you want personalize your tablet or trace images. Unfortunately, its stickiness makes drawing long brush strokes erratic—we couldn't achieve fluid movement across the surface. Our pen also felt sticky, making our scrawling a bit herky-jerky. Removing the cover earned us fuss-free interaction but left no visible distinction between the tablet's active area and the surrounding border.

The software bundle—which includes Adobe Photoshop Elements 1.0, Corel Painter Classic, and nik multimedia penPalette LE—sounds great until you notice that none of it is OS X native. The tablet itself is solid, but if you live in a humid climate, have clammy hands, or love hand lotion, beware.—*Kris Fong*

A graphics tablet is an artist's best friend—this one's good for beginners.

PHOTOGRAPH BY MARK MADEO

COMPANY: Wacom Technology
CONTACT: 800-922-9348, www.wacom.com
PRICE: $199.95 ($99.95 for 4 by 5 model)

REQUIREMENTS: USB-equipped Mac, Mac OS 9 or 10.1.5 or later, 64MB RAM (128MB in OS X)

GOOD NEWS: Stylish. Big scrawling surface. Good software bundle.
BAD NEWS: Transparent photo frame hinders smooth hand movement and pen interaction. Software bundle is OS 9 only.

MacAddict RATED
SOLID

We make the coolest Mac stuff on the planet - period.

For over ten years **Griffin Technology** has created smart, beautiful and original accessories for the Mac and now iPod. Every day we are dreaming up new ways of making you say "Wow."

Here are a few of our ground-breaking accessories to add to your Griffin wish list. From the drop dead beautiful PowerMate to the classic iMic, we set the standard for the coolest Mac stuff in the world.

PowerMate $45
USB MultiMedia Controller Knob

- Now in Brushed Aluminum and Black
- Great control for iTunes or iMovie
- Programmable for any application
- Replaces repetitive keystrokes

Nostromo n52 SpeedPad

GAME CONTROLLER

EDITORS' MacAddict CHOICE

Bigger and badder than before, Belkin's SpeedPad has evolved beautifully.

We didn't really have any complaints with the previous Nostromo SpeedPad game controller, the n50 (*Reviews*, March/03, p54), but next to this year's n52, the old 'pad feels flyaway flimsy and pantywaist light.

The n52 has a heavier base with more-effective antiskid treatment, better software, and a third row of keyboard-style keys on the main area of the pad for a total of 14 keys at your fingertips. It also has an eight-way directional pad, clickable scroll wheel, and two additional buttons for your thumb. Need more controls? Install the supplied Nostromo Array Programming Software, and use it to assign some of the keypad keys as modifiers (much like your Mac's Shift and Control keys).

You can also use the software to record macros to execute more-complex keystroke combinations. The macros can give you a real advantage in hand-to-hand combat games such as Oni, where you can string together your favorite moves and activate a lethal barrage with one keystroke. If that feels like cheating, you can skip the software altogether—just plug in the SpeedPad and play. All of the games we tried recognized the pad and let us assign keystroke controls via their standard control interfaces.

If pressed to complain about the n52, we'd note the finger keys' stiffness; they require more pressure than we use when dinking around on a regular keyboard, however, in the heat of action, they were perfect. Gamers, don't deny yourself this unfair advantage.—*Niko Coucouvanis*

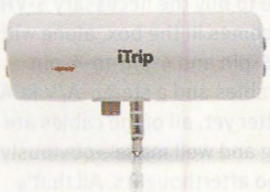
PHOTOGRAPH BY MARK MADEO

COMPANY: Belkin
CONTACT: 310-898-1100, www.belkin.com
PRICE: $49.99, $29.99 (street)

REQUIREMENTS: USB-equipped Mac, Mac OS 9.0.4 or 10.1.2 or later

GOOD NEWS: Sturdy. Heavy-duty, no-skid bottom. Great software.
BAD NEWS: Stiff buttons and keys. Some buttons hard to reach if you have small hands.

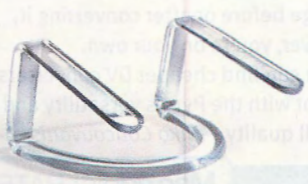
MacAddict RATED 4 OF 5 GREAT



$35

iTrip
FM Transmitter for iPod

- Play your iPod through any empty FM radio station from 87.9 to 107.9
- iPod powered - no battery necessary
- Fits beautifully to top of iPod - no messy cables or hanging dongles



$39.99

iCurve
PowerBook & iBook Stand

- Raises laptop screen to a more comfortable eye-level height
- Creates room on the desktop for an external keyboard and mouse
- Keeps laptop cool with complete 360 degree air circulation

$39.99

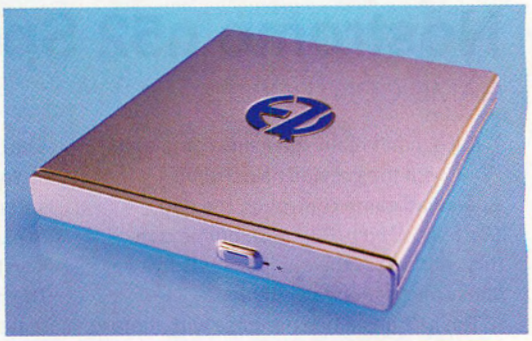
iMic
USB External Sound Card

- Adds stereo audio inputs & output to any USB equipped Mac or PC computer
- Includes everything needed to record albums and tapes to make MP3s & CDs
- Plug-and-Play simple, no install required

GRIFFIN TECHNOLOGY
www.griffintechnology.com

Boa Slim DVD-RW/CD-RW

OPTICAL DRIVE



This little poser of a drive matches your PowerBook's design but not its work ethic.

Just when you were thinking of Apple's SuperDrive as the most versatile—and slowest CD-burning—optical drive around, EZQuest unleashes the Boa Slim. This suave, aluminum-cased drive matches the SuperDrive's DVD- and CD-burning capabilities, and trumps Mac OS X's limited DVD-RW support with a software bundle that includes CharisMac's Discribe (which, unlike Mac OS X solo, can rewrite DVD-RW discs). The Boa's 8X2X2X DVD-R/RW, 32X16X8X CD/RW speed is as fast as any SuperDrive with CDs, but falls short of the 4X DVD burning in Apple's latest.

The Boa comes with everything you need—almost. It includes FireWire 400 and USB 2.0 cables, a stylish black-leather carrying case, and AC power supply. The software bundle contains Dantz's Retrospect Express for backups, CharisMac's Discribe for general-purpose CD and DVD burning, and Pixela's ImageMixer for basic DVD authoring—*very* basic. See "The Great DVD Debate" (Dec/03, p41) for details on why ImageMixer isn't a suitable substitute for iDVD. And no, iDVD doesn't recognize the Boa Slim, though the Mac OS X Finder usually does.

The Boa is supposedly a plug-and-play device if you're running Mac OS 8.6 and later. But about 20 percent of the time (too often), we'd plug in the drive or insert a disc, and the Mac wouldn't notice: Discs didn't mount or play via any software—even Apple's System Profiler drew a blank. The Boa pulled this disappearing act when connected via FireWire or USB to various Macs running Mac OS 10.2.8 and 10.3.1. Disconnecting, then reconnecting the AC adapter revived the drive every time.

And speaking of the AC adapter, you have no choice but to use it—the drive can't draw from FireWire bus power. The Boa Slim looks great and does its job adequately, but its all-too-frequent vanishing act makes it a tough sell.
—*Niko Coucouvanis*

COMPANY: EZQuest
CONTACT: 714-694-0031, www.ezq.com
PRICE: $325 (street)

REQUIREMENTS: 266MHz G3 (G4 for authoring), Mac OS 8.6 or later (10.3 for iTunes support), 256MB RAM

GOOD NEWS: Sleek, slim design.
BAD NEWS: Slow. Not bus powered. Loud internal fan. Tends to not mount discs.

MacAddict RATED ●●○○○ SO-SO

Pyro A/V Link

DV CONVERTER

This black box goes both ways—analog to digital, and vice versa.

As the world goes digital, it's easy to forget about all the low-tech folks who still watch birthday-party videos and Blockbuster rentals on analog VHS and VHS-C cassettes. It's also easy to forget about our precious home videos when they're deteriorating, unwatched, in the attic. ADS Technologies' Pyro A/V Link is an easy solution to such digital-versus-analog dilemmas. This inconspicuous box converts digital video to analog, and vice versa, so you can digitize those old VHS tapes for transfer to DVD or, conversely, put your latest iMovie masterpiece on a VHS cassette for your Luddite buddies.

Newbies needn't be intimidated by the array of ports on the front and back of the Pyro—they're all useful. It's got 4- and 6-pin FireWire for your DV camera and Mac, S-VHS, RCA, and component ins and outs. You can even attach a component DVD player to the front-mounted RCA jacks, plug in a VCR via the S-VHS port in the back, and copy a DVD to video tape without even connecting the Pyro to your Mac. Another perk: You don't have to buy the necessary S-VHS cable—it comes in the box, along with 6-pin-to-6-pin and 4-pin-to-4-pin FireWire cables and a stereo-A/V RCA cable. Better yet, all of the cables are 6 feet long and well made—obviously not cheapo afterthoughts. All that's missing is a Composite-Video cable, but those are often proprietary for each camera anyway.

The Pyro doesn't come with any Mac-friendly software, but you don't need any for direct conversion, which is a push-button affair. If you want to edit footage before or after converting it, however, you're on your own.

You can find cheaper DV converters, but not with the Pyro's versatility and overall quality.—*Niko Coucouvanis*

COMPANY: ADS Technologies
CONTACT: 800-888-5244, www.adstech.com
PRICE: $279, $170 (street)

REQUIREMENTS: FireWire-equipped Mac, Mac OS 9 or later

GOOD NEWS: High-quality cables included. Easy operation. Great results.
BAD NEWS: No frills for TV recording included.

MacAddict RATED ●●●●○ GREAT

PHOTOGRAPHY BY MARK MADEO

EDITORS' MacAddict CHOICE

Ozone

USB AUDIO/MIDI DEVICE

We loved this snazzy all-in-one USB audio and MIDI controller.

Though it looks like a small keyboard, M-Audio's Ozone is actually a portable MIDI controller with 25 full-size keys. It doesn't contain built-in sounds—you use it to control and play sounds from any connected hardware or software MIDI device. It contains a MIDI and audio interface; its backside had every jack we needed for recording: an XLR input with built-in phantom power (which spared our mic battery), 1/4-inch instrument input, 1/4-inch stereo input, 2x2 MIDI (supports 16 channels), stereo 1/4-inch output, and a headphone jack with direct monitoring capability. It also features a smooth pitch bender and modulation wheel to alter notes, as well as octave selector buttons and eight assignable knobs to automate or control MIDI info.

With a drum module, synthesizer, guitar, and mic connected, the Ozone made a one-woman band possible, feeding MIDI data and 24-bit/96kHz digital audio to our Mac. We also tapped into Apple's QuickTime Music Synthesizer via our recording software and used the Ozone to record live performances on our Mac. One quibble: The Ozone's keys are stiff compared to our other keyboards.

The only problem we had was in changing patches, which is accomplished by pressing numbered keys. The printed numbers don't line up exactly with the corresponding key—this caused us to enter the wrong patch numbers on occasion. Also, sometimes notes kept playing after we released a key—but we'll blame that on our recording software. Bottom line: The Ozone rocks.—*Kris Fong*

COMPANY: M-Audio
CONTACT: 800-969-6434, www.m-audio.net
PRICE: $399.95

REQUIREMENTS: G3 or faster, Mac OS 9.2.x or 10.1.5 or later (including Panther), 128MB RAM, built-in USB port

GOOD NEWS: Has every audio and MIDI input needed to record music. Built-in phantom power. Portable.
BAD NEWS: Keys somewhat hard to press. Clumsy patch access can be annoying

MacAddict RATED ●●●●○ GREAT

PHOTOGRAPH BY MARK MADEO

Bluetooth Wireless Optical Mouse

INPUT DEVICE

Setting up Belkin's Bluetooth mouse is easy, given the included USB adapter and Mac OS X's native Bluetooth support. But unfortunately, the mouse is jumpy, and made us frequently miss our target, click the wrong button, or place the cursor in the incorrect spot. Also, to our hands, the mouse was chunky and heavy, and it didn't glide smoothly across surfaces.

There are two buttons, a clickable scroll wheel, and a thumb-click button that's preprogrammed as a back button. Since Mac OS X doesn't support that function, and since you can't reprogram it, that button is useless. —*Cathy Lu*

The promise of Bluetooth doesn't deliver in this mouse.

COMPANY: Belkin
CONTACT: 800-223-5546, www.belkin.com
PRICE: $79.99
REQUIREMENTS: Mac OS 10.2.8 or later

Good News: Bluetooth cuts down on number of wireless receivers.
Bad News: Heavy. Jumpy tracking.

MacAddict RATED ●●○○○ SO-SO

MicroHub

USB 2.0 HUB

EDITORS' MacAddict CHOICE

We cussed up a storm when we discovered that the USB ports on our keyboard don't provide the power USB 2.0 devices require. Iogear's wee MicroHub to the rescue: It connects to your Mac via a one-inch cable that tucks neatly into the hub's underbelly for tidier transport. Four ports support USB 2.0 or 1.1 devices, and a green LED on top assures the hub is powered up and good to go.

It's a one-trick pony—but a thoroughbred one.

One niggling complaint is with the AC power cable, which we managed to accidentally dislodge from the power port twice—but we'll chalk that up in part to our incredibly cluttered desk and perpetual coffee jitters. —*Niko Coucouvanis*

COMPANY: Iogear
CONTACT: 866-946-4327, www.iogear.com
PRICE: $18.98 (street)
REQUIREMENTS: USB-equipped Mac, Mac OS 10.2 or later (for USB 2.0 speeds)

GOOD NEWS: Slim. Sleek. Speedy.
BAD NEWS: Power plug disconnects too easily.

MacAddict RATED ●●●●○ GREAT

Another War

ROLE-PLAYING GAME

What, no scantily clad Dark Elven sorceresses or hideous drooling monsters to defeat in this role-playing game? No matter—your opponents are an even darker evil: Nazis. Unfortunately, the exasperating Another War also has more bugs, quirks, and tiring humor than it has depth.

You play a mercenary-turned-adventurer stuck in the middle of a plot between Germans and Russians. You must save your art-collector friend from the Nazi's clutches. To do so, you travel through Europe, picking up companions that fight by your side along the way, and using weapons and equipment that meticulously recreate WWII matériel. Gameplay is reminiscent of traditional role-playing games such as Baldur's Gate and Fallout, complete with a bird's eye view and an experience-points system for earning new levels and character-class choices for you and your crew. Each character class has special skills and solves problems in unique ways. If the character you are playing is in jail, for example, as the Strongman you would bust down the door, as the Thief you would pick the lock, or as the Intellectual you would persuade the guard to open the door. Don't expect your other party members to lend a hand—only you have the power to effect your environment and story in this way. This is a good setup in theory—your decisions could drastically change the rhythm and ending of the game—but unfortunately, it falls short, as Another War doesn't exploit the different character-class decisions enough to warrant playing the game again as a character of a different-class.

The game is peppered with humor and sarcasm—which, though amusing at first, becomes annoying after a while, especially in real-time combat. Worse, combat is rife with bugs—watching Gestapo agents stuck in a repeating death loop gets old fast. Another War offers a somewhat entertaining story and a variety of weapons, but that's about it.

—Matt Osborn

A bug in Another War makes us watch Nazis die again and again—once would probably be enough.

COMPANY: Virtual Programming
CONTACT: 214-855-5955, www.macplay.com
PRICE: $29.99

REQUIREMENTS: 350MHz G3, Mac OS 8.6 to 9.2.2 or 10.1 or later, 128MB RAM, 200MB disk space, QuickTime 5 (installs automatically if not found when you install the game)

GOOD NEWS: Lots of weapons. Good voice acting.
BAD NEWS: Buggy. Humor gets annoying. Awkward game balance.

MacAddict RATED
SO-SO

Zoo Tycoon

SIMULATION GAME

You'd think running a zoo would be all fun and games. Well, it ain't. Kids trash your park, there are never enough bathrooms, and animals get pissy if dinner comes late.

Zoo Tycoon lets you plan, build, and manage a virtual zoo. You start with an empty park, choosing from a number of park sizes and terrains (such as a crater lake, a rock desert, or tundra). You get $50,000 to build enough attractions to draw a crowd. It costs tons of money to build animal exhibits, buy food stands, and pay zoo workers—but you can rake in a lot of money on admission and overpriced hot dogs.

ON THE DISC
Zoo Tycoon game trailer

To build an animal exhibit, you need to put up fences, buy animals (such as baboons, sea lions, and white tigers), and then make sure they have what they need. All animals need appropriate terrain and accoutrements—polar bears, for instance, demand salt water, snow, and rocks.

We started with four lions; now we have ten—and a bunch are hiding out in the shelters we had to buy for them.

Another key is to invest money in research. Doing so means your options will increase—you'll get to choose from more animals, better food parlors, attractions, fountains, and so on.

A few major annoyances: Once you place an object—say, a pizza stand—you can't move it. Also, the terraforming tool is frustrating to use—stick to a flat grass park for the easiest building experience.

Zoo Tycoon's fun is in building new exhibits and sculpting your park, but that part will only take you a few days. After that, the animal attraction is all but gone.

—Cathy Lu

COMPANY: Aspyr
CONTACT: 512-708-8100, www.aspyr.com
PRICE: $49.99

REQUIREMENTS: 233MHz PowerPC G3 or G4, Mac OS 9.2 or 10.1 or later, 128MB of RAM, 600MB disk space, 16MB VRAM

GOOD NEWS: Easy to learn. Really fun—for a while. Good for kids.
BAD NEWS: You'll lose interest after a few days.

MacAddict RATED
SO-SO

STAR TREK® ELITE FORCE II

ENGAGE IN EPIC CONFLICT against a horde of alien invaders and other foes in the single player campaign. Deathmatch-style Multiplayer gameplay modes include Holomatch, Capture the Flag, Elimination, Action Hero and many more.

LEAD YOUR TEAM INTO BATTLE across numerous environments including: planet-side ruins, space stations, volcanic planets, alien colonies, treacherous swamps and other exotic locales.

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TEEN T Blood and Gore Violence

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theHotList

THE BEST OF THE BEST FROM RECENT REVIEWS

SHOPPING? HERE'S WHAT WE RECOMMEND

NEW THIS MONTH

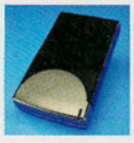
MacSoft Neverwinter Nights

Game guru John Lee began his review of this incredibly rich role-playing game by saying, "We planned to start this review with the bad news, but there isn't any."

Microsoft Wireless IntelliMouse Explorer

MacAddict's executive editor and mouse maven, Cathy Lu, dubs this multibutton input device as "one fine rodent."

ADS Technologies Pyro DV Drive



Shooting digital video? Save a ton of time by converting it to DV on the fly with this portable drive and encoder. Reviewer and videographer Rick Sanchez calls it "fantastic."

SOFTWARE

AUDIO			
IK Multimedia AmpliTube Live	$129.00	Nov/03, p46	Don't think software can replace monster guitar amps? It can.
MOTU Digital Performer 3	$795.00	Feb/02, p58	This pro-audio app has a great array of features.
Propellerhead Software Reason 2.5	$449.00	Sep/03, p55	It's earned its rep as the top software sound studio.
GAMES			
Aspyr Jedi Knight II: Jedi Outcast	$49.95	Feb/03, p37	Fantastic gameplay with both weapons and The Force.
Aspyr NASCAR Racing 2002 Season	$39.99	May/03, p57	Realistic NASCAR racing on a Mac? Believe it.
MacSoft Neverwinter Nights	$49.99	Jan/04, p54	Flaunt your Dungeons & Dragons skills in the best RPG ever.
MacSoft Unreal Tournament 2003	$49.99	Oct/03, p44	Blood and gore. Violence. More blood and gore. More violence.
GRAPHICS & LAYOUT			
Adobe Acrobat Professional 6	$449.00	Nov/03, p50	If you're in pro publishing, this is one must-have app.
Adobe InDesign 2.0	$609.00	May/02, p50	Look out, Quark—Adobe's rival layout tool kicks butt.
Adobe Photoshop 7	$609.00	Jul/02, p46	Picture-perfect pixel pusher moves to Mac OS X.
Adobe Photoshop Elements 2	$99.00	Dec/02, p40	This app has most of Photoshop's power for $500 less.
FontLab 4.5.2	$549.00	May/03, p53	The font editor all we type geeks have been waiting for.
Hemera Photo-Objects	$99.00	Nov/03, p56	50,000 quality images for under a hundred bucks.
Macromedia Dreamweaver MX 2004	$399.00	Jan/04, p48	Our favorite Web-design tool adds improved CSS support.
Macromedia Flash MX 2004 Professional	$699.00	Jul/02, p51	Don't know how to write code? Flash MX will do it for you.
Macromedia FreeHand MX	$399.00	Jun/03, p49	In the race with Adobe Illustrator, FreeHand pulls ahead.
PRODUCTIVITY & UTILITIES			
Apple Keynote	$99.00	Apr/03, p48	This presentation app was built for Mac OS X—and it shows.
Bare Bones Software BBEdit 7.0.1	$179.00	Mar/03, p52	By far the most powerful text editor money can buy.
Microsoft Office v. X	$499.00	Feb/02, p42	The 800-pound gorilla of productivity applications.
Prolific Publishing Marine Aquarium 2	$19.95	Aug/03, p54	OK, it's just a screensaver—but it's the coolest one ever.
VIDEO & ANIMATION			
Adobe After Effects 6.0	$699.00	Dec/03, p62	This motion-graphics stud improves its 3D powers.
Apple DVD Studio Pro 2	$499.00	Dec/03, p58	Apple's essential DVD-burning app gets even better.
Apple Final Cut Pro 4	$999.00	Sep/03, p44	This kick-ass video-editor now includes four new apps.

HARDWARE

ACCESSORIES			
Formac Studio TVR	$299.00	Oct/03, p48	Watch TV, record TV, digitize tapes—what's not to like?
Kensington Expert Mouse	$127.95	Oct/03, p60	Optical trackball plus scroll wheel equals killer controller.
Microsoft Wireless IntelliMouse Explorer	$64.95	Jan/04, p57	Our favorite mouse now offers horizontal scrolling.
MacWireless Power Over Ethernet	$29.98	Jun/03, p61	Mount an AirPort Base Station 250 feet from AC power.
Palm Zire 71	$299.00	Aug/03, p44	A PDA, digital camera, and MP3 player all rolled into one.
AUDIO			
ADS Technologies Pyro DV Drive	$650.00	Jan/04, p55	Record DV video direct to this mobile encoder and drive.
Apple 20GB iPod	$399.00	Jul/03, p44	The world's greatest MP3 player gets smaller and cooler.
Digidesign Mbox	$495.00	May/02, p59	This audio interface is a traveling musician's delight.
DIGITAL CAMERAS			
Canon PowerShot S230 Digital Elph	$349.00	Mar/03, p48	A great 3.2-megapixel camera in a tiny, low-cost package.
Leica D-Lux	$900.00	Oct/03, p46	Exceptional style married with exceptional image quality.
Nikon Coolpix 5400	$699.95	Dec/03, p22	This prosumer camera handles well and shoots even better.
Olympus C-4000 Zoom	$449.00	Jan/03, p52	Great image quality, 4 megapixels, and versatile controls.
Olympus D-560 Zoom	$229.95	Dec/03, p22	This affordable point-and-shoot produces great images.
DISPLAYS			
Apple Cinema HD Display	$1,999.00	Aug/02, p40	This 23-inch, 1,920-by-1,200-pixel beauty inspires lust.
Formac gallery 2010	$1,199.00	Jan/03, p47	Bright, fast, huge—and it costs only $.0006 per pixel.
PRINTERS			
Brother HL-1870N	$699.99	Aug/02, p45	Need a sturdy laser printer? This one's a workhorse.
Epson Stylus Photo 2200	$699.00	Oct/02, p42	The most stunning photo printer we've ever tested.
STORAGE			
LaCie d2 200GB FireWire 800	$299.00	Jun/03, p47	FireWire 800 speed meets solid-as-a-rock construction.
OWC Mercury Elite Pro	$309.99	Jul/03, p53	This 180GB FireWire 800 drive outpaces the competition.
WiebeTech Fire800	$589.95	Dec/03, p53	Hefty 300GB capacity combines with speedy performance.

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Watch live television directly on the Mac. With EyeTV you can experience "time shifting" and the incredible freedom of being able to pause, repeat a scene and then fast forward through "live" television.

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Record television digitally on the Mac's hard drive, so you can collect and organize your favorite shows. Manually program EyeTV or use EyeTV's program guide from TitanTV to ensure you find and record all the programs that interest you.

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With the built-in editor you can easily identify where programs or scenes stop and start, so you can quickly edit recorded television to save only the parts you want to see again.

ARCHIVE

Save your collection of favorite shows for all times. Create DVDs or VideoCDs of your recorded television shows that you can play anywhere on most standard DVD players.*

To see EyeTV live in action, visit Elgato at Macworld San Francisco, booth # 2433.

* Toast 6 Titanium is required to burn DVDs or VideoCDs.

elgato www.elgato.com

GOT A QUESTION? NEED ADVICE? ask us WE CAN HELP

SAFARI QUITS

Why does Safari unexpectedly quit every time I try to launch it?

The culprit is probably a corrupt Preferences file, which Safari tries to load when it first launches. This file, called com.apple.Safari.plist, is located in your *user name* › Library › Preferences folder. Delete it, and the next time you launch Safari, it will generate a clean version. The Bookmarks.plist, Downloads.plist, and History.plist files (housed in the *user name* › Library › Safari folder) are also capable of being corrupted—but if you delete them, be forewarned that your Bookmarks, download history, and list of most-recently accessed sites will disappear.

OLD LASERWRITER

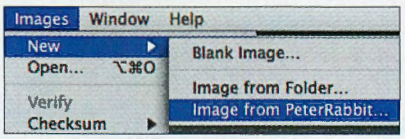
How can I connect an Apple LaserWriter 12/640, which doesn't have an Ethernet port, to my new iMac?

All current Macs and network printers use an RJ-45 Ethernet connector, which looks like an oversized phone-cord plug. But before RJ-45 became the de facto Ethernet standard, Apple used an Ethernet connector called AAUI, which is what your 12/640 LaserWriter has. To hook up your AAUI-connected printer to your current RJ-45–connected Ethernet networks, you need an AAUI–RJ-45 Ethernet transceiver. These devices are hard to find new, but a quick search for "AAUI transceiver" on eBay yielded several, including an Asanté FriendlyNet AAUI-to-RJ45 Transceiver for six bucks.

DISK COPY

I just installed Mac OS 10.3 (Panther) and want to make disk images of my CDs. Where is Disk Copy?

Disk Copy is gone from Panther. Apple incorporated Disk Copy's functions into Disk Utility (Applications › Utilities). To create a disk image of a CD in Panther, insert the CD, launch Disk Utility, highlight your CD's name in Disk Utility's left window, and select New › Image From *CD name* (see below). Name the image and save it.



To create CD backups in Panther, go to Disk Utility.

BIGGER PICTURES

Where can I get bigger album images for my iTunes collection? The thumbnails on Google and Amazon.com are so small.

Thanks to reader Ben Veronis for this tip: Check out Walmart's Web site (www.walmart.com), which has 500-by-500-pixel images that dwarf Amazon.com's 300 by 300 thumbnails.

Album art from Amazon.com.

Album art from Walmart.com.

G4 CONFUSION

I recently inherited an old Power Mac G4. How can I tell which model it is?

There actually were nine different Power Mac G4 models produced by Apple between 1999 and 2003. To help you identify your specific model, Apple has posted two documents on its support Web site (www.info.apple.com). Search for articles numbered 58418 and 42739 to get a full description of specifications (such as video card and processor information) on any Power Mac G4.

MAC LAWYER

Where can I locate Mac software to help me write a will?

You can use Kiplinger's WillPower ($29.95, www.taxcut.com) to create your own will and accompanying documents, a living will, and even a healthcare Power of Attorney.

CD SECURITY

How can I securely burn important financial records onto CD?

The easiest method is to use Roxio's

quick answers TO QUICK QUESTIONS

REMOVE MENU ICONS

I put the Eject menu item in my menubar—how do I remove it?

Hold down the Command key, drag the icon out of the menubar, and release it.

Command-Tab, Panther style.

APP SWITCHING

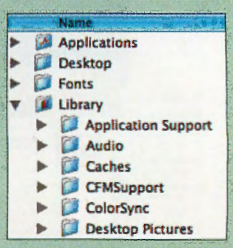
How can I quickly switch between active applications in Mac OS X?

Hold down Command, and then press Tab to cycle through apps. Panther's onscreen graphic helps you navigate.

OPEN ALL FOLDERS

When I'm in the Finder's List view, how can I expand a group of folders without having to click the little triangle next to each individual folder?

Highlight all the folders you want to open, then press Command–right arrow to expand all of them.



UNIX UNIVERSITY

SEARCH WITH GREP

What is grep and what can it do?
The euphoniously named grep command is a powerful search tool that you can customize to search for detailed strings of text. It comes from the Unix text-editor command g/re/p, which was used to *globally* search for *regular* expressions and *print* the results. It is essentially a tool for searching by content. For example, the following command searches in the /etc directory for any file that has the word Ethernet in it:

```
grep Ethernet /etc/*
```

It will list the name of text files and show the line of text that contains the word *Ethernet*. The * is a wildcard. Without it you would have to tell grep *exactly* which file to search for in the /etc directory.

The grep command is case-sensitive. To make it case-insensitive, use the -i switch:

```
grep -i sometext /etc/*
```

For more on grep and other Unix commands, see "Access Your Mac with the Terminal" (Mar/03, p62).

Secure CDs using Toast.

Toast Titanium 6 ($99.95, roxio.com; see our review on p43) to create 128-bit encrypted, password-protected, secure CDs. Don't forget that password!

iMOVIE AND USB

Why won't iMovie recognize my digital camcorder when I connect it via USB?
You need to connect your camcorder's FireWire port (sometimes called the IEEE 1394 port) to your G4's FireWire port for iMovie to recognize your camcorder. Your camcorder's USB port is intended for transferring digital still photos.

IMAC INTRO

I'm a Windows user, and I recently inherited a 400MHz Blueberry iMac. Is this Mac too old to be of any use?
No, it's a great starter Mac! Your four-year-old 'berry is called a slot-loading iMac, due to the way you insert CDs. It uses standard PC-100 RAM and has a standard IDE hard drive, both of which you can upgrade—although the hard drive upgrade is a bit of a chore (check out "Upgrade Your Mac," p16). The biggest plus to your iMac is that it can handle Mac OS X, although it'll run slowly and you won't get the full benefits of Quartz Extreme graphics because you only have 8MB of VRAM.

SAFARI BOOKMARKS

What's the shortcut for adding a URL into Safari's Bookmarks menu?
Shift-Click the little plus icon next to the URL you want to add.

SHARE PRINTERS WITH PC

How can I share my Mac-connected inkjet with PC users on my network?
Upgrade to Mac OS 10.3 (Panther). Its printer-sharing feature allows your printer to show up as a network Postscript printer.

ENOUGH ALREADY

How can I shorten the huge list of updates in the Software Update system preference?
Highlight the update name you no longer want to see, then select Make Inactive or Ignore Update from the Update menu. Note: We don't recommend ignoring Mac OS software updates.

ThisMonth

66 Pimp Out Your G5
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Seven years of handling tech support for Apple, Power Computing, and a Texas school district have given Buz Zoller Mac superpowers.

Submit technical questions or helpful tips directly via email (askus@macaddict.com) or c/o *MacAddict*, 150 North Hill Dr., Brisbane, CA 94005.

Pimp Out Your G5

by Niko Coucouvanis

TRICKY

WHAT YOU NEED

- Power Mac G5
- Any variety of LED and/or cold cathode light kits, available at Crazy PC (www.crazypc.com) and PCToys (www.pctoys.com)
- Adhesive-backed Velcro or double-sided tape
- Toggle or rocker switches, available at RadioShack (www.radioshack.com)
- Electric drill
- Protective eyewear (not your Gucci pimp shades)

Modders. You've seen them: PC-using wannabes who cut holes in their cases and jazz the whole thing up with flashing lights and fancy paint jobs. Suckers. The Power Mac G5 is the Mack Daddy of pimp cases—not only does it already come with thousands of precut holes in its casing, you can remove its aluminum siding to reveal a clear airflow guard that perfectly showcases your Mac's phat, aesthetically minimalist chassis.

So why not up the bling-bling factor if you're going to put it on display like that? We show you how to light up your G5 like a three-ring freak circus. And because some discretion goes hand in hand with pimpdom, we show you how to wire up a secret control panel of switches that'll let you control the mood lighting—or kill it if you really need to chill. Just decide on your course of design and action—we pimped our G5 out with cold cathode lights and an LED, and included a sound-activated module to make the lights react to sound. It's all good as long as you don't mess with the airflow guard—or the playa.

PHOTOGRAPHY BY MARK MADEO

Turn your Power Mac G5 into a Mac Daddy.

1 Punk the Power

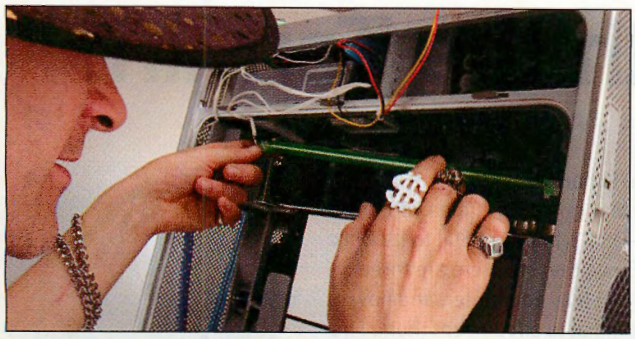
Got lights? Get power. Unfortunately, the G5 has only one standard 4-pin power plug (unlike the average PC, which usually houses a good half-dozen power connectors and miles of ribbon cable), and it's connected to the SuperDrive. Luckily, our light kits feature dual plugs to share the wattage. To get to the plug, power down your G5, pop it open, and carefully disconnect the SuperDrive's data cable from the motherboard: You'll find it directly under the 'Drive's support frame against the motherboard. Remove the SuperDrive by pulling the two latch levers beneath it toward you until you feel them release, and pull out the 'Drive—be sure to guide the data cable up through the frame in the process. Then unplug the power cable from the 'Drive's back.

To get to the power plug, pull out the SuperDrive and take a look at its backside.

2 Bring on the Bling

Now it's time to light this mutha up like a punkass pinball machine—fo' sure. We reformed bar rats and Vegas-ites can't get enough neon, but traditional neon lighting is too hot, power-hungry, and oversized for these purposes. Instead, use cold cathode lights, which consume minimal power (about 2 to 4 watts per light), run cool, and look hot. We like PCToys and Crazy PC light kits, which have smart dual inverters that let you daisy chain lights to a single power source. To power a light, simply hook up the male plug on its power inverter to the G5's power plug and its female end to the SuperDrive—that's it. If you want to add another, disconnect the first light's female plug from the SuperDrive and attach it to the second light's male plug. Then attach the second light's female plug into the SuperDrive. Repeat for any additional lights. If you want to make your lights active, plug in a sound-activated module between your G5 and the first light.

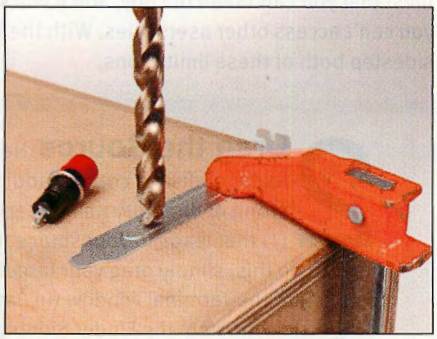
Power inverters—the holy grail of case modding—allow you to bling it on and on and on.



Be smart about your light placement—sticking stuff to the motherboard or to RAM chips is a pretty dim idea.

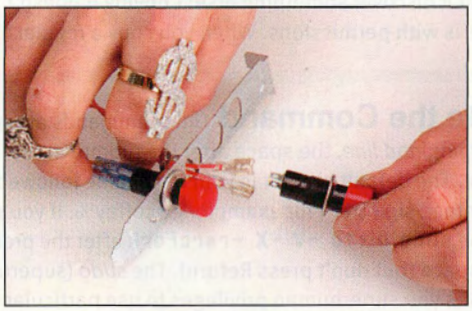
3 Stick It Once you've got your chain-o'-lights connected, lock the SuperDrive back in place, pulling the data cable back through the frame and plugging it back into the motherboard. Then carefully pack the power inverters and wires into the space above and/or behind the SuperDrive—watch that fan! Now it's time to decorate. Use adhesive-backed Velcro or double-sided tape to attach your various lights to your G5's interior. We attached our 12-inch cold cathodes vertically behind the case's front panel and horizontally above the PCI cards, with a shorter 4-inch one at the case's front top. We also placed one LED cannon behind the fan, aimed toward the front, to play up the industrial look. Just make sure you leave room for the airflow guard, which will occupy some of the case's free space once you close it up.

4 Control the Freak To control the light show, install a set of switches to an empty PCI slot cover on the G5's booty. If possible, use the top one for better wire access. Because our light kits' switches were too wide for the cover, we replaced them with smaller ones from RadioShack (four or five small switches fit on one PCI slot cover). To ensure that you get the right switches, pull off the two lead wires from an original switch and take the switch and a PCI cover to RadioShack to find suitable replacements with the same wire connector (they've got plenty to choose from). Once you've got new switches, slip on your protective eyewear, clamp the PCI slot cover to a block of wood or a drill press (if you have one), grab an electric drill with the same diameter drill bit as your new switches (we used a 5/16-inch bit), and drill one hole for each switch you want to mount.



If you've got a drill in your hands, wear eye protection—especially when drilling metal.

5 Wire It and Light It Up Route your lights' original switches to the PCI card opening, and neatly tape their wires to your G5's corners and beneath the long case divider under the drive cages. Stick to the frame—don't attach anything to the motherboard, RAM, video card, or other sensitive electronics. Next, unplug one of the original switches from its wire pair and guide the wires through one of the slot cover holes; repeat with all others. Plug each wire pair into a new switch's terminals and mount the switches on the slot cover. Then reinstall the slot cover, lock it down with the safety screw, stick the airflow guard back on, power your beast up, and pimp out to your new light show. Feel free to add other design accoutrements as you see fit—we even replaced our aluminum siding with MacSkinz's clear acrylic G5 side-panel replacement ($40, www.macskinz.com).



These toggle switches have integrated lock nuts, so mounting them is a snap.

Pimpin' with Old School Macs

Now don't feel like we ain't representin' you OG (old G3 and G4) pimps out there. It may be tougher to see lights through opaque Mac cases, but where there's a will, there's a way.

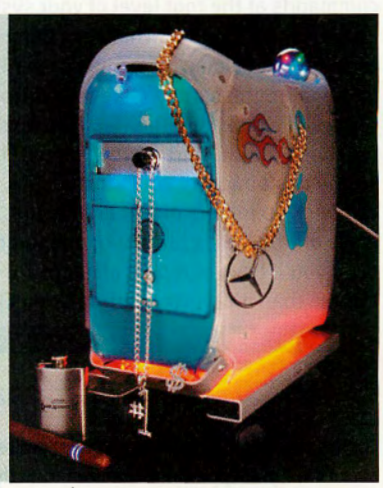
Blunt Me Install a functional cigar lighter into the extra 5 1/4–inch drive bay up front—PCToys sells one for $19.95.

Take It Outside With enough Velcro and tape, you can stick lights anywhere. Route the wires through an empty PCI slot and do your Mac up like a Christmas tree.

Flaunt What You've Got Shine internal lights through your case's back vent holes and its CD- and Zip-drive openings up front. If you've got a Mirrored Drive Door G4, shine light out from its front portholes for a cool effect.

Go Nuts It's your Mac (and your warranty—or not); if you're a real freak, grab a bit and drill some ventilation into the case to let interior lights shine out.

Niko Coucouvanis is investigating miniature hydraulic risers to turn his G5 into a low rider worthy of his pimpin' Oakland neighborhood.

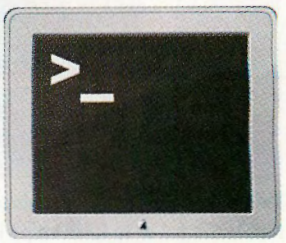


Troubleshoot with the Terminal

by Geoff Coffey

Apple's accomplished the impossible with Mac OS X: It's created an operating system that geeks, grandmas, creative types, business-minded peeps, and even kindergartners can love. And not only does it offer a user-friendly and stylish graphical interface, but it's got Unix at its core. While a productive Mac-head need not care a whit about Unix, that's not to say a little Unix can't come in handy.

When a Mac quick-fix eludes you, the Terminal—OS X's handy portal to its Unix side—can save the day. Here are three dilemmas you may encounter, and how to use the Terminal to circumvent them. Fire up the Terminal (in Applications › Utilities), put on your propeller beanie, and dive in!

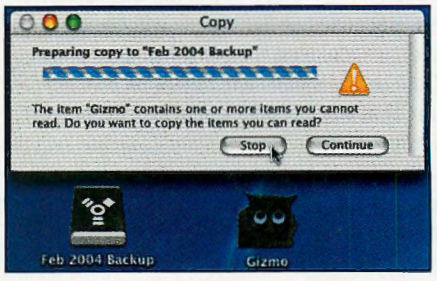


Back Everything Up

EASY

WHAT YOU NEED

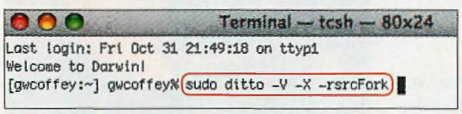
- Mac OS 10.2 or later ($129, www.apple.com)
- BSD subsystem installed (part of the Mac OS X standard installation)
- Administrator access
- Storage medium (such as a CD-R, DVD-R, or external hard drive)



Backing up your startup disk can be a real drag—literally. Our drag-and-drop method allows easy backups without pesky permissions problems.

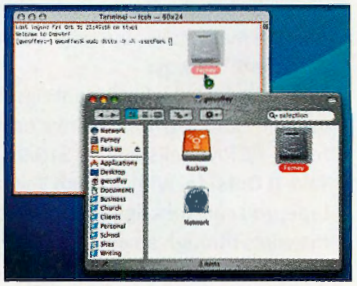
Hard drives are not fail-safe, and you should know by now that backing up is the best advice anyone can offer. But if you try backing up your whole hard drive in the Finder (so you don't have to reinstall all of your apps, retweak preferences, and whatnot), you'll discover something else: Copying it doesn't work. The trouble is with permissions. When you copy a regular file in the Finder, you own the new file—no matter how the original was set. But your Mac contains files (such as system files) that you can't read or copy, and if you share your Mac, you can't access other users' files. With the Terminal, you can sidestep both of these limitations.

1 Create the Command Unix commands are typed on the *command line*, the space after the prompt in the Terminal. The default prompt is your user name followed by a percentage sign (%)—for example, gwcoffey%. If you're a Panther user, type **`sudo ditto -V -X -rsrcFork`** after the prompt, and then type a space (but don't press Return). The *sudo* (superuser do) command gives you superhuman privileges to use particular commands at the root level of your system. The *ditto* command invokes the ditto tool, which can copy entire directories. The *-V* flag tells ditto to display file names in the Terminal as it copies them to monitor progress, the *-X* flag tells ditto to ignore other disks beyond the startup disk, and the *-rsrcFork* flag preserves resource forks and HFS metadata. Unfortunately, Jaguar doesn't support ditto's -X flag, so you can't back up your startup disk in one fell swoop. But you can back up folders one at a time. Just type the same command but leave off the -X flag, and drag one folder instead of your entire startup disk (you'll have to repeat all steps for every folder). If that's more trouble than it's worth, Carbon Copy Cloner (www.bombich.com) is a nifty piece of donationware that'll do the trick for you.



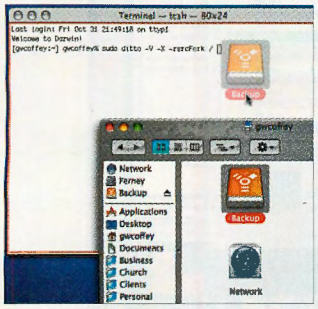
On the command line, every space and letter is important. Make sure you type the command exactly as you see it here.

2 Drag the Source Next, tell Unix which folder or disk to copy by adding its *path*, the string of directory names separated by a slash (/) that leads to your source, to the command line. To do this, simply drag your target's icon from the Finder into the Terminal window (in Panther, you can't drag disk icons from the Finder Sidebar; select Computer from the Finder's Go menu to find icons fit for dragging). After dropping the icon on the Terminal window, the Terminal automatically displays the correct path. If you drop in your startup disk, the path will be short—just a slash (/). It'll be much longer for a nested folder (for example, for your iTunes Music folder, you'd get this path: /Users/*user name*/Music/iTunes\ Music. Then type a space (don't press Return).



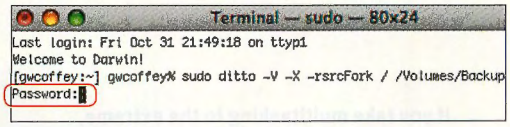
To ensure you give Unix the right path to your source, drag the targeted file, folder, or disk into the Terminal window—no breadcrumbs needed.

3 Drag the Destination Lastly, let ditto know where to copy your files. If you're backing up to another hard drive, simply drag its media icon into the Terminal window to display its path. If you want to back up to a CD- or DVD-R, put a blank disc in your drive and drag its icon into the Terminal window. However, know this: ditto is a dummy when it comes to size limitations. It won't tell you if your source disk's files exceed the space on your destination disc or disk—it'll dutifully copy for 45 minutes and then complain when it runs out of room. It's up to you to make sure there's enough space on your backup media to accommodate your startup disk. If you run into space constraints, create a new folder on your desktop and drag it onto the Terminal window to serve as the backup destination. You can then burn selected folders and files from it without permission problems.



Dragging this FireWire hard-drive icon onto the Terminal creates a secondary path that tells ditto where to copy the files—be sure to type a space between the two paths.

4 Type the Magic Word OK, time to start the copy process—press Return. The Terminal will ask for your administrator password to provide you with superuser privileges. Type it in and press Return again. That's it. A lot of text will fly across the Terminal screen, letting you know that it's hard at work. Depending on how many MB or GB you're backing up, this can take a while. When the text stops flyin' and you see your prompt again, your backup is finished. If you backed up to a CD- or DVD-R, burn the disc by selecting its icon and choosing Burn Disc from the Finder's File menu.



As you type your password, nothing shows up onscreen. This is Unix-speak for "security."

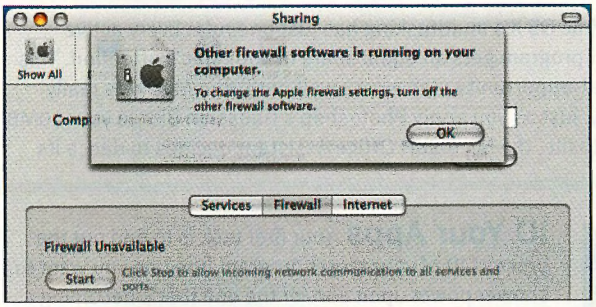
Fix the Firewall

EASY

WHAT YOU NEED

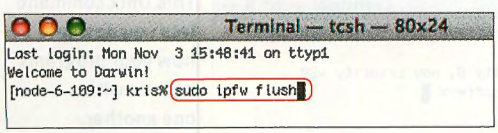
- Mac OS 10.2 or later ($129, www.apple.com)
- BSD subsystem installed (part of the Mac OS X standard installation)
- Administrator access

For extra security, Mac OS X has a built-in firewall. This firewall software makes your computer invisible to prying eyes on the Internet. You can easily activate the firewall; open System Preferences, click the Sharing preference, click the Firewall button, and click Start. Unfortunately, some programs, such as Timbuktu, sometimes modify your Mac's internal firewall settings, so when you try to activate the firewall, OS X tells you it's unavailable unless you deactivate your other software. Luckily, you've got Unix.



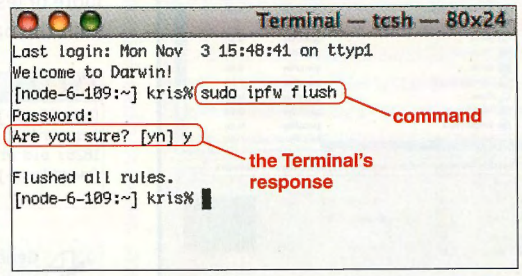
If you've ever seen this error, this fix is for you.

1 Fire Up the Command Launch the Terminal (if it isn't open already), type **sudo ipfw flush** at the prompt, and press Return. This command first invokes the superuser do root privileges (available to anyone with administrator status). The command *ipfw* configures the behind-the-scenes IP Firewall settings, and the *flush* command sets the firewall back to its default settings.



This bitty command can easily fix big firewall access problems.

2 Flush Away The Terminal asks you for your administrator password: Enter this next to its prompt and press Return. The Terminal responds with "Are you sure? [yn]"—type **y** and press Return again. Your Mac quickly goes to work, deleting all pre-existing rules and returning the firewall to the default settings. When it's finished, the Terminal displays "Flushed all rules" in its window. You can now turn your firewall on and off with ease.



After you give the command to flush out all of your current firewall rules, the Terminal will ask you if you're sure you want to do this.

Prioritize Your Processor Power

EASY

WHAT YOU NEED

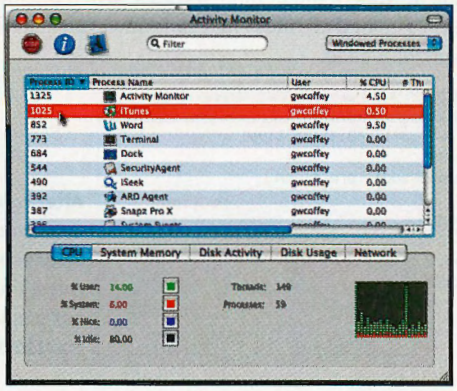
- Mac OS 10.2 or later ($129, www.apple.com)
- BSD subsystem installed (part of the Mac OS X standard installation)
- Administrator access

If you take multitasking to the extreme, a little processor power play can prevent display hiccups, sound stutters, and gratuitous spinning wheels.

PHOTOGRAPH BY MARK MADEO

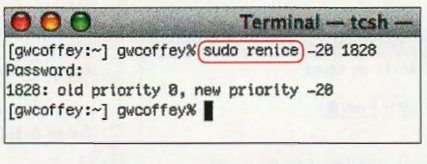
Mac OS X's multitasking has just one rule: Every active program gets an equal share of your Mac's attention. This equal-opportunity plan works well until your Mac gets really busy. Just as you apply Photoshop's Gaussian Blur to your 50MB photo file, the Microsoft Office Assistant decides to dance its little jig, making everything slow to a crawl. No, you don't have to quit your other apps and force OS X to give its undivided attention to the task at hand—you can simply use the Terminal to tell OS X which programs should receive the most attention. Here's how.

1 ID Your Apps Your first task is to find out the process ID of your target program (the one you want to shower power upon and/or the one that's becoming a processor hog). To find this info, just launch Activity Monitor if you're running Panther (in Applications › Utilities) or Process Viewer if you're using an older version of OS X (also in the Utilities folder). In Activity Monitor, select Windowed Processes from the top-right pop-up menu, click the CPU button to display a list of all active apps, and note your target program's process ID number in the Process ID column. In Process Viewer, select User Processes from the Show pop-up, select your target app from the list, click the More Info disclosure triangle, and click the Process ID tab to view its process ID.



In Panther, use the Activity Monitor to find a program's process ID. With earlier X incarnations, use Process Viewer to get this info.

2 Set Its Priority Next, tell OS X how important your VIP (very important program) is by using the renice command to make your programs more or less nice. A nice program demands less computing power. A not-so-nice program takes more power for itself. So if Office Assistant's loafing is slowing down more important things, you can tell Word (or another Microsoft Office app) to be less selfish. Every program starts off with a value of zero, but you can choose any number from +20 (the nicest) to -20 (Mr. Grinch) to set its priority. To do this, launch the Terminal and type **sudo renice** *value ID*, where *value* is the value of your niceness setting, and *ID* is the process ID of your chosen app (for example, **sudo renice -15 619** gave power to our Photoshop task). Then press Return; the Terminal prompts you for an administrator password. Type in your password and press Return again. OS X instantly starts giving your program a little more or less power as requested. Just remember that renice can shift the balance of power, but it can't make your Mac faster.



This Unix command lets you decide how your programs behave with one another.

Geoff Coffey is a Unix programmer and a 15-year Mac fanatic. He thinks OS X is A-OK.

Attention MacAddicts!

Annual MacAddict Newsstand–Only Special Issue Available Now!

AVAILABLE through February 2004

Secure Your Mail

by Chris Barylick

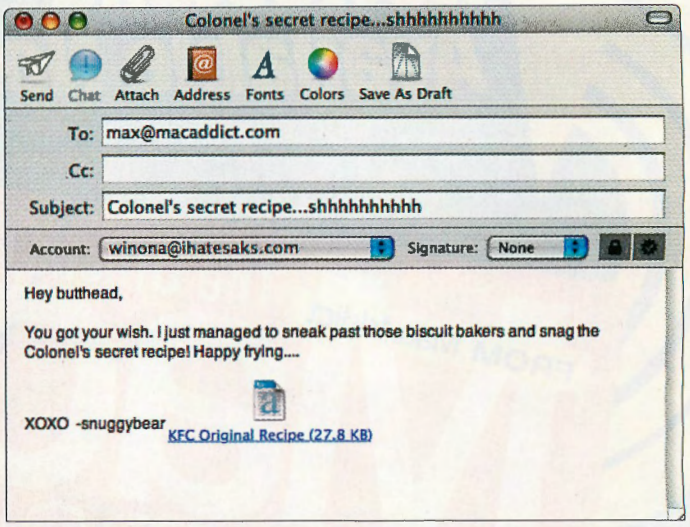
TRICKY

WHAT YOU NEED

- Mac OS 10.3 or later ($129, www.apple.com)
- Mail 1.3 or later (part of OS 10.3)
- Mozilla 1.6a or later (free, http://mozilla.org)
- Internet connection

Personal documents, credit card information, even your amazing cheesecake recipe is up for grabs whenever you send them via email. The average email, if intercepted, can be easily opened with any text editor on a Mac or PC. Suddenly your online banking password, last night's debauchery details, and work gripes are in a stranger's hands—maybe even your boss's.

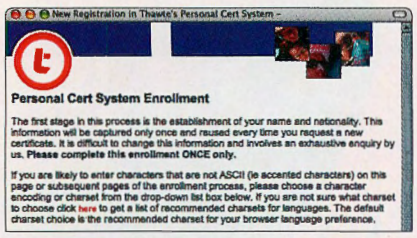
Encrypting email can help protect sensitive information, but the process has been somewhat intimidating to set up and use. Thankfully, Panther (Mac OS 10.3) makes it easier than ever. Here's how to set up Mail with encryption to protect your private life.



Got secret stuff to send that you want to keep from prying eyes? We show you how to enable Mail's secret decoder ring.

1 Get Certified

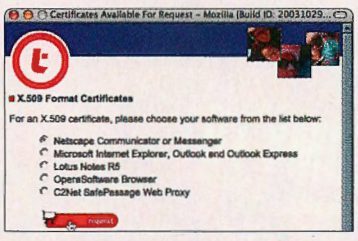
To encrypt email, your Mac uses two keys—these assign an algorithm to a message, making it nearly impossible to decode. You and your recipient must have each other's public keys to decode messages; your private key digitally signs your messages before you send them. To obtain these keys, you need a personal certificate that contains them (use Mozilla to avoid bugs with Safari and Internet Explorer). Verisign's Thawte division offers free certificates. Fire up Mozilla and go to www.thawte.com/html/COMMUNITY/personal/index.html, click Join, and follow the instructions. After registering, you'll get an email with instructions to complete the process, which you must do within two days.



Some companies charge big bucks for personal certificates, but Thawte doles them out for free—just sign up.

2 Download the Certificate

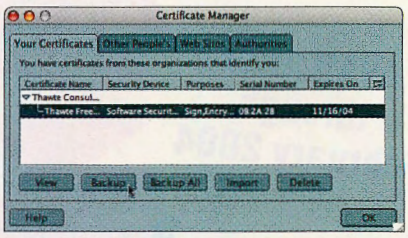
Open the link displayed in the email in Mozilla, copy and paste the Probe and Ping codes in the resulting dialog, and click Next. In the resulting dialog, enter the user name and password you created when you signed up, and click OK to go to the Personal Certificates page. Under X.509 Format Certificates, click Request, and follow the instructions to generate your keys. When it asks for your browser type, select Netscape Communicator Or Messenger. When finished, click the link to open the Certificate Manager page, and then click View Certificate Status. Once the certificate is issued, click it, and then click Fetch in the resulting page to download and install the certificate.



Because Thawte's site doesn't list Mozilla, choose Netscape, which essentially uses the same browser code.

3 Export a Backup

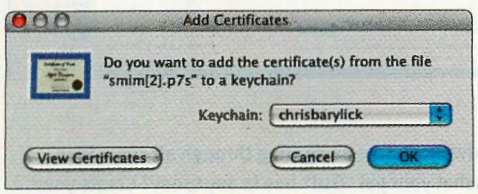
To use the certificate in Mail, export the certificate file. From the Mozilla menu, select Preferences. In the resulting dialog, click the Privacy & Security disclosure triangle to display its contents, and then click Certificates. In the resulting panel, click Manage Certificates and then click the Your Certificates tab; you should see your Thawte Free certificate listed. Select it, click Backup, and save the file to your desktop (or wherever else you want). You'll be asked for the master password you created in step 2—type this into the dialog and click OK. In the resulting dialog, you'll be asked to create a password to protect your backup file: Enter this twice and click OK to create the file.



To use your encryption keys in Mail, first export the certificate file from Mozilla by creating a backup file.

4 Keychain Your Keys

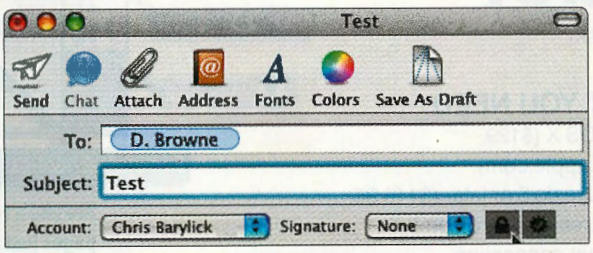
To load the certificate into your system, double-click the backup file. Keychain Access launches and offers to import the certificate. Click OK to add the files to your keychain. Now test it out. Quit Keychain Access, open Mail, and click New to compose a message. Note the small starburst icon with the checkmark in the window: This indicates that the pending message will include your digital signature. To send an unsigned message, click this icon (the checkmark turns into an *x*).



Just double-click the backup file to put your personal certificate into the system keychain, which you can then use in Mail.

5 Send Your Key

Before you can send encrypted messages back and forth, you and your recipient must have each other's public key files. The easiest way to exchange them is to simply send a signed email to each other—Panther automatically attaches your public key to every signed file sent through Mail. When you open a digitally signed message, double-click your sender's public key file to add it to your keychain. Once both of you have done this, you can send encrypted email to each other. Click New in Mail. When you type your encryption buddy's address in the To field, Mail displays an encryption button (a padlock icon), which you click to encrypt your message. Once you do, your email will be secure—all words and attachments.



Once you exchange public keys, Mail will display an encryption option button on any message you address to a fellow key holder.

Chris Barylick remembers the days when high-end security consisted of speaking in Pig Latin. Daniel Browne provided technical assistance with this article.

Print Finder Window Content

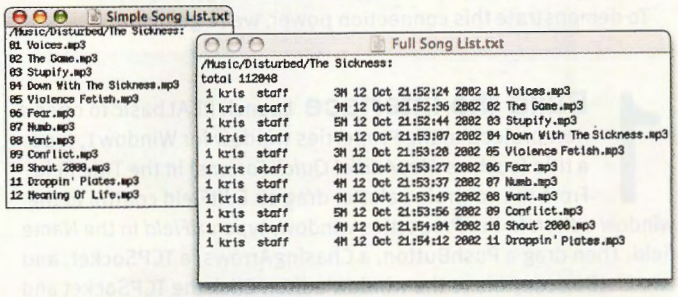
by Geoff Coffey

EASY

WHAT YOU NEED

- Mac OS X or later ($129, www.apple.com)
- BSD subsystem installed (part of the Mac OS X standard installation)

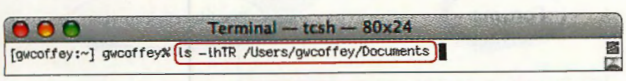
One thing we miss about Mac OS 9 is the ability to print Finder window content for media archival purposes. Sure, you could select all items in a Finder window, copy them, and then paste the data into a text editor, but you'd wind up with a chaotic list of file names with no order. Fortunately, Unix can take organization up a notch. Using the Terminal, you can create a file that lists a folder's contents, which you can then edit and print.



Need a printout of a folder's contents? Choose a names list (left) or full file stats (right), and use the Terminal to create a printable file.

1 Make the List

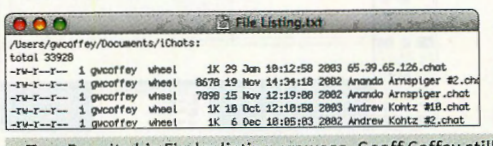
If you just want file names, type **ls** in the Terminal window after the prompt. If you want file names, sizes, and dates, type **ls -lhTR**. The *-l* flag lists the results in long format (including file sizes, owners, and times), the *-h* flag displays file sizes in meaningful units (like 253KB) rather than bytes (259072). The *-T* flag displays the complete time info, and the *-R* flag lists subfolder contents. Type a space and then drag the desired folder from a Finder window into the Terminal window to display its path.



You can list just file names—type ls (or ls -R to include subfolder contents)—or get detailed information.

2 Create the File

To output the results in a text file, type a right-facing arrow (>), a space, a quotation mark ("), a name for your file with a .txt extension, and another quotation mark. (For example, **> "File Listing.txt"**.) Press Return to create a file; this gets stored in your Home folder by default if you haven't changed directories since launching the Terminal. You can then open this file using any word processor, then edit and print it.

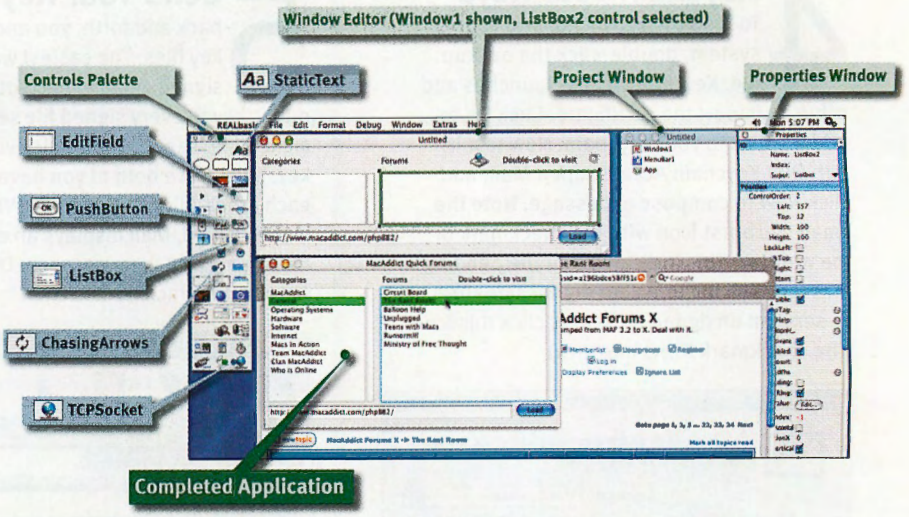


With full stats, you see names, owners, sizes, dates, and more.

Despite his Finder listing prowess, Geoff Coffey still keeps a Sharpie handy.

Create a MacAddict Forums Reader

by Erick Tejkowski



TOUGH

WHAT YOU NEED

- Mac OS X ($129, www.apple.com)
- REALbasic 5 or later ($149.95, www.realsoftware.com)
- Internet connection

Are you a Forums dweller? Hate navigating through all of our Web pages just to see what your pal "GUI" has to say today? Create your own quick-access Forums reader.

No matter what shareware game developers say, REALbasic isn't just about fun and games. It's also great for creating applications that help you work faster. One of its many useful features is the TCPSocket, a REALbasic *class* (a template that describes how an object or group of objects behaves) that enables you to add network connectivity to your apps. You can use TCPSocket to add Web, email, and SSL (secure sockets layer—an encryption technology) to projects.

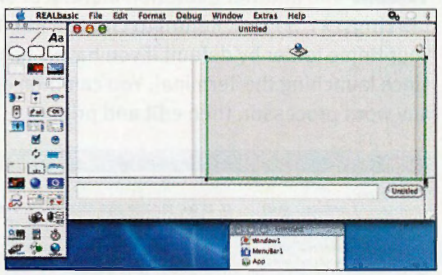
To demonstrate this connection power, we're going to show all of you MacAddict Forums dwellers a different way of approaching your normal hangout by building a custom Forums-viewing app—one that scours our Web site and presents all the current Forums categories and subcategories in an interface window for instant double-click access to the actual Web pages. And even if our Forums aren't your stomping ground, you can apply this know-how to a similar Web presence of your own choosing.

ON THE DISC

REALbasic 5.2.2 demo and MA Forums Project tutorial files

1 Build the Interface

Launch REALbasic to open a new project. In the Properties window for Window1, type a title (such as *MacAddict Quick Forums*) in the Title field. From the controls palette, drag an EditField control to the window editor. In the Properties window, type *urlField* in the Name field. Then drag a PushButton, a ChasingArrows, a TCPSocket, and two ListBox controls to the window editor. Click the TCPSocket and in the Properties window, select HTTPSocket from the Super pop-up menu. Enlarge the window and drag ListBox1 to the left side; this will ultimately display our main Forums categories. Resize it to match the proportions of the one shown here by dragging one of the corner points. Move ListBox2 to the right side of the window and resize it too; this will display the subcategories (The Rant Room, Digital Hubba-Hubba, and the like).



Position the control elements in the window editor so it looks like this (or not—hey, it's your application).

2 Set Attributes and Labels

To cloak the PushButton in Aqua garb, select the control and check the Default box under Appearance in the Properties window. Then title the button by entering a word or two in the Caption field under Appearance (we named ours *Load*). To let users know what's what in your interface, create text labels; drag three StaticText controls from the controls palette to the window editor. Place one above ListBox1, and type *Categories* in the Text field under Appearance in the Properties window. Drag the second one above ListBox2 to the left and change its text to *Forums*. Place the third above ListBox2 to the right and change its text to *Double-click to visit* (or whatever you want). Click the EditField and in the properties editor, type *http://www.macaddict.com/phpBB2/* in the Text field under Initial State (you may need to scroll down). Then save your project as a REALbasic Standard Project.

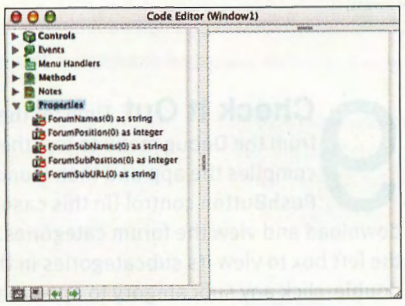
Let users know how your app functions by providing text labels that tell them what's what and how to use your interface.

3 Declare Your Properties

What you've got now is an interface window full of controls, but if you want them to perform actions, you need to create and define variables, or *properties* in REALbasic-speak. Deselect any selected control in the window editor and then double-click anywhere in the window (but not on a control) to open the Code Editor. From the Edit menu, select New Property; in the resulting dialog, type **ForumNames(0) as string** in the Declaration field, leave the default checkmark as is, and click OK. This property will keep track of all our Forums category names—it appears under Properties in the Code Editor. Repeat this same process four more times to create the following new properties, named as follows:

```
ForumPosition(0) as integer
ForumSubNames(0) as string
ForumSubPosition(0) as integer
ForumSubURL(0) as string
```

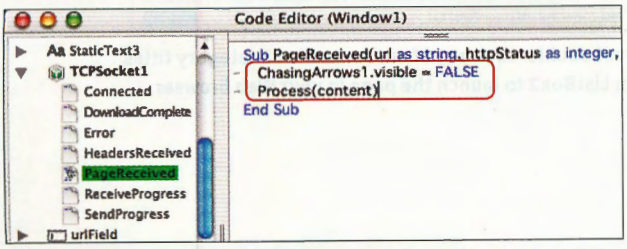
ForumPosition will remember the location of all the ForumNames in the Web page. ForumSubNames and ForumSubPosition have the same functionality as ForumNames and ForumPosition, but they deal with the subcategories of the Forums. The ForumSubURL property keeps track of the URLs that correspond to each subcategory. Save your project.



To add functionality to your application interface, start by creating properties that will hold programming code to make the app work.

5 Complete the Code

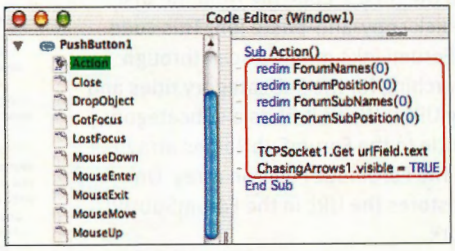
When the code from step 4 is activated, the PageReceived event of the TCPSocket control will fire up to complete the download process. However, you need to finish writing the code to make it do two more things: hide the ChasingArrows control to let users know the job is finished, and process the content of the downloaded Web page by extracting the names and URLs it finds. To complete the code, double-click the TCPSocket control in the window editor to open its events in the Code Editor, click the PageReceived event, and copy the two lines of code, shown below, between the Sub lines. Save your work.



This tiny bit of code stops the spinning wheel and extracts Web links and names from downloaded pages—plagiarize this puppy to bring this functionality to your app.

4 Push Button Programming

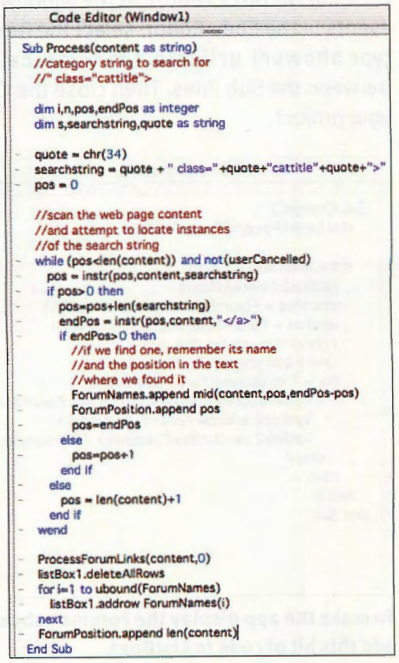
OK, let's get coding! Double-click the PushButton control in the window editor to open its Action event in the Code Editor. When a user clicks this button, we want the code to execute and do three things—clear all the properties you created in step 3, start downloading the main page of the MacAddict Forums based on the URL text in the urlField (aka EditField) control, and display the ChasingArrows control to let users know something is happening. Copy the code exactly as it appears below, between the Sub lines, to program the button.



In English, this is pure gibberish. In REALbasic, this chunk of code makes the PushButton control come alive.

6 Create a Process

To have your app display the Forums categories and names, create a process that will scan through the Forums page's HTML and extract the category names. Make the Code Editor window active and select New Method from the Edit menu. In the resulting dialog, type *Process* in the Method Name field, type *content as string* in the Parameters field, and click OK to create it. To program the Process method, copy the code shown below, line for line, between Sub lines in the Code Editor. This is going to take a while...OK, just kidding—we're not sadists. You don't have to type it; we've done the work for you. Just grab our text file Step 6 Code on the Disc and copy and paste the code between the Sub lines. This code loops through the HTML, scanning for category titles. When it locates one, the code adds the title to the ForumNames array and the position to the ForumPosition array. After the code completes the HTML scan, it sends the text to the ProcessForumLinks method (which we'll create in a moment) for further processing, and then displays the results in ListBox1.



This headache-inducing amount of code scans the MacAddict Forums page and returns all of its category names in ListBox1.

7 Create a Method to Find Subcategories

The ProcessForumLinks method, mentioned in the previous step, will be responsible for scanning the text to locate the forum subcategories and their links. To create it, select New Method from the Edit menu. In the resulting dialog, type *ProcessForumLinks* in the Method Name field, type *content as string,start as integer* in the Parameters field, and click OK. Then in the Code Editor, enter the code (shown right) between the Sub lines—grab the Step 7 Code file from the Disc and do another a quick copy-and-paste job. This code makes the ProcessForumLinks method scan through the HTML twice, searching for the subcategory titles and their corresponding URLs. When it finds a subcategory, the code adds the title to the ForumSubNames array and the position to the ForumSubPosition array. On the second pass, it stores the URL in the ForumSubURL array. Save your work.

Code Editor (Window1)

```
//sub-category string to search for:
//<span class="forumlink"> <a href="viewforum.php?f=4" class="forumlink">MacAddict Readers</a><br /></span>

dim i,n,pos,endPos as integer
dim s,searchstring,quote as string

quote = chr(34)
searchstring = quote + " class="+quote+"forumlink"+quote+">"
pos = start
while (pos<len(content)) and not(userCancelled)
  pos = instr(pos,content,searchstring)
  if pos>0 then
    pos=pos+len(searchstring)
    endPos = instr(pos,content,"</a>")
    if endPos>0 then
      ForumSubNames.append mid(content,pos,endPos-pos)
      ForumSubPosition.append pos
      pos=endPos
    else
      pos=pos+1
    end if
  else
    pos = len(content)+1
  end if
wend

//find URLs
searchstring = "<span class="+quote+"forumlink"+quote+"> <a href="+quote
pos = start
while (pos<len(content)) and not(userCancelled)
  pos = instr(pos,content,searchstring)
  if pos>0 then
    pos=pos+len(searchstring)
    endPos = instr(pos,content,quote+" class="+quote+"forumlink"+quote+">")
    if endPos>0 then
      ForumSubURL.append mid(content,pos,endPos-pos)
      pos=endPos
    else
      pos=pos+1
    end if
  else
    pos = len(content)+1
  end if
```

This long bit of code (available on the Disc) will locate the Forum subcategories for you.

8 Display the Subcategories

The ProcessForumLinks method will find and container all the subcategory titles and URLs, but to display this info in ListBox2 of your application, you need to add some code to ListBox1. In the window editor, double-click the ListBox1 control to display its events in the Code Editor. Select the Change event and type the code, shown below, between the Sub lines—the cheat sheet for this is Step 8 Code on the Disc. To enable subcategory page viewing in a Web browser, double-click the ListBox2 control in the window editor to display its events in the Code Editor, select the DoubleClick event, and type **showurl urlField.text+me.cell(me.listindex,1)** between the Sub lines. Then close the Code Editor and save your project.

Code Editor (Window1)

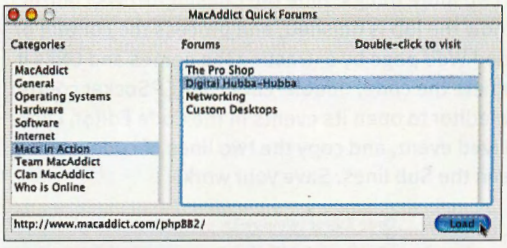
```
Sub Change()
  dim i,startPos,endPos as integer

  if me.listindex>=0 then
    listBox2.deleteAllRows
    startPos = ForumPosition(me.listindex+1)
    endPos = ForumPosition(me.listindex+2)
    //loop through the Sub arrays
    //and add the results to Listbox2
    for i=1 to ubound(ForumSubNames)
      if ForumSubPosition(i)>startPos and ForumSubPosition(i)<endPos then
        listBox2.addrow ForumSubNames(i)
        listBox2.cell(listBox2.lastindex,1)=ForumSubURL(i)
      end if
    next
  end if
End Sub
```

To make the app display the Forums subcategories in ListBox 2, add this bit of code to ListBox1.

9 Check It Out

Time for the test drive—select Run from the Debug menu to test the project. REALbasic compiles the app and then launches it. Click your PushButton control (in this case, the Load button) to download and view the forum categories. Click a category from the left box to view its subcategories in the right one. Then double-click any subcategory to open that forum topic in your browser. If everything works, quit the test app. Then select Build Settings from the File menu, check the Mac OS X (Carbon) box, select Macintosh Settings from the pop-up menu, and type a name for your app in the Mac OS X Name field. Click OK. Then select Build Application from the File menu to create your new Forums reader.



Just double-click any of our Forums' subcategory titles in ListBox2 to launch the page in your Web browser.

Erick Tejkowski programmed his home automation software on a cluster of 2,048 Macintosh Duo Docks. They run in parallel to intelligently turn on his bathroom light.

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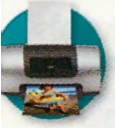

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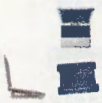

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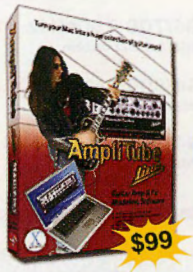

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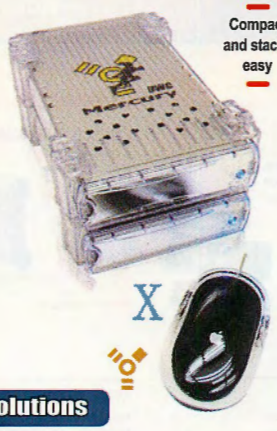

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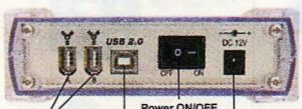

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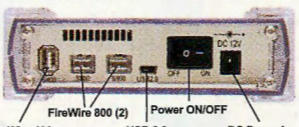

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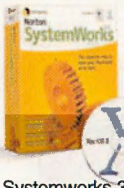
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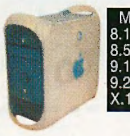

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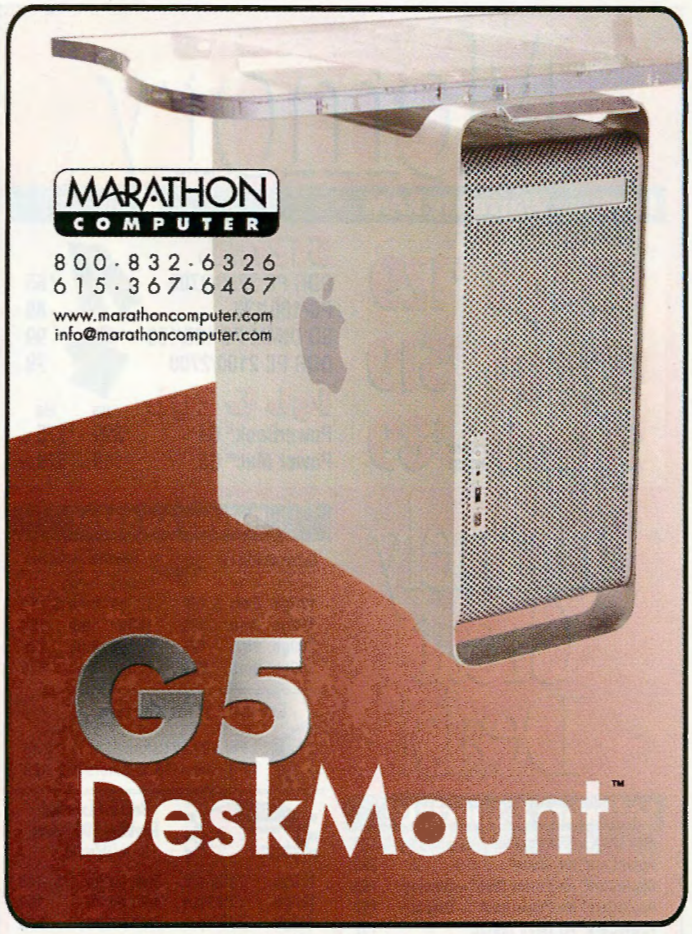

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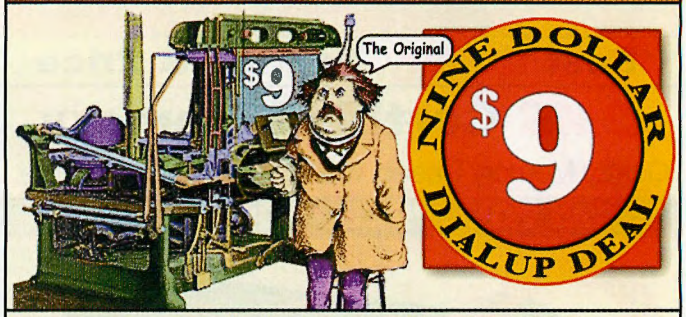

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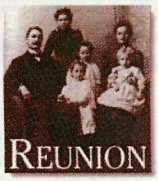

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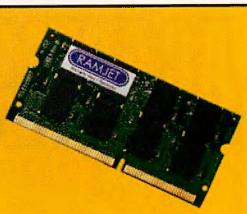

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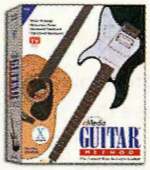

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LETTERS

SCOTCH TALK

I saw the familiar mention of single-malt Scotch in "*MacAddict*'s Ultimate Home Office" (Nov/03, p30). I want to be more like the *MacAddict* staff.

What are your favorite labels? *—Brett Sonnenschein*

3M Scotchguard isn't as tasty as I thought it might be.—*Max*

Lagavulin *—Jenifer Morgan*

Never touch the stuff. *—Cathy Lu*

The Glenlivet *—Narasu Rebbapragada*

Aberlour A'bunadh *—Rik Myslewski*

Scotch? Jagermeister! *—Niko Coucouvanis*

WORK IN STYLE

Überkudos on "*MacAddict*'s Ultimate Home Office" (Nov/03, p30). Everything in the article rocked, especially the JBL speakers, the Power Mac–PowerBook combo, the vodka, and the space itself. The only thing I would do differently would be to go with the HP Color LaserJet 1500L (the more expensive alternative). Now let's see the ultimate home recording studio!—*Alex*

THAT'S FLATTERY

I just wanted you great folks at *MacAddict* to have the honor of being the first ones I emailed from my new G5. As for my old 9600 that was barely running Mac OS X, it's being donated to a former PC user!—*Joe Kendall*

Generosity *and* missionary zeal! Joe, we salute you! *—Max*

TERMINAL TIP

To use the Unix command rsync to sync files (*Get Info*, Nov/03, p17) when you're behind a personal or broadband router firewall, you may need to open port 22 (SSH) in the Firewall pane of your Sharing system preferences.—*Mary Jo DeMorrow*

DON'T EAT THE MOOSE POOP

Wackiest Business Idea Contest winner Boyd Shaffer's moose-poop jewelry business idea was creative but hardly original (*Log Out*, Oct/03, p95). The fine people of Alaska have been selling moose turds to tourists for years. In 1992, I bought a chocolate-coated moose dropping "lollipoop," which came clearly tagged with a "Do Not Eat" warning. I affixed the trinket to the top of my dad's Christmas gift and mailed it off. Unknown to me, he was experiencing early Alzheimer's and put it in his mouth immediately. There were no lasting ill effects.—*Jaqi Asghedom*

Except that now 200,000 readers know about it.—*Max*

RECENTLY SIGHTED

I thought I might give your ultimate home office (Nov/03, p30) a run for its money.—*Kirk*

YOU KNOW YOUR KID'S A MAC ADDICT WHEN...

My 20-month-old son can mimic the start-up chime of my iBook perfectly and in sync with the machine booting up.—*S. Green*

When he can hum the Mac OS X setup music, we'll be really impressed.—*Max*

THE CHEESE STANDS ALONE

I am appalled by the thought of your staff thinking the new Power Mac G5 looks like a cheese grater (*Shut Down*, Oct/03, p96). The G5 is no joke and no cheese grater. Whoever was the first to convey that idea should have his pay severely trimmed. *—Ian Strom*

Oh man, the cartoon guy always gets blamed.—*Max*

BLOGGER POSEURS

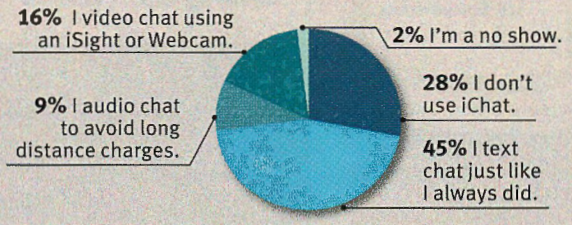
Here's a snapshot from day one of BloggerCon, the October 2003 Weblog conference held at Harvard Law School (see top of facing page). It clearly shows that the glowing white Apple is the ax of choice for the elite blogger. Dave Winer, one of the event organizers, tried to convince us that bloggers take a vow of poverty. For a bunch of

SURVEY SAYS

Online Poll Results

Here are the results of our September 2003 online poll. Go to www.macaddict.com each month to give us your two cents on Mac-related questions.

HOW DO YOU USE iCHAT AV?



890 respondents

The poor little rich bloggers at Haa-vard.

low-rents, these bloggers sure have nice computers, though. Dowbrigade (that's me) is still trying to figure out how to get his hands on a PowerBook without violating his vow of poverty. *—Michael Feldman aka Dowbrigade*

FRENEMIES

Ah, so, so refreshing: All my Mac-bashing, PC-loving friends are saying, "iTunes is the best thing ever!" And I'm, like, "Yeah, I know. I've been using it for, what, 4 years?" However, I'm not down with all these dirty PCs touching the iTunes Playlists on my G5. Apparently none of the nearly 1,000 Mac users on my campus are either. We all appropriately renamed our music libraries "Die PC Users," "Get a Mac," and, my favorite, "G says PCs SUCK."*—G*

You *could* just disable Rendezvous sharing, but you seem to be having way too much fun.*—Max*

QUEST FOR MOST DANGEROUS COMMAND CONTINUES

In your November 2003 issue (*Log Out*, p94), Ben writes in to say that `rm -r /` is the most dangerous command you can type in Unix, correcting the previous "Unix University" article on the same subject (*Ask Us*, Aug/03, p59). I'd like to correct him. The command above won't actually delete everything; you must confirm that you want to delete any write-protected files. Typing the command `rm -r -f /` will force the deletion (from the -f), deleting everything with no opportunity to turn back. Enjoy.*—Jen*

Forget brushed metal. This reader likes molten plastic.

THE WARM AND FUZZY LETTER

Two weeks ago, I had an electrical fire at home. It melted my older G3 down to one big square of burnt plastic and metal, but sitting there in the middle of the ashes and debris was my Power Mac G3 tower. It was badly burnt, but to my surprise, the interior looked unharmed. I took it to my office the next day. As I plugged it in, I heard the sweet chime that only a good startup can bring. I stood there, proud of my miracle Mac, while everyone else stared in disbelief. I don't plan on repairing the casing on my Blue-and-White tower. I plan on leaving it as is to show just how well-built Macs are.*—Randy Smith*

CONTEST

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ENTRY FORM

IMAC PHOTOGRAPH COURTESY OF APPLE

Write a caption for this picture.

.....

.....

.....

CONTESTANT INFORMATION

Full Name: _____

Address: _____

City: _____ State: _____

Zip: _____

Email or telephone: _____

Send snail-mail entries to Belkin Contest, *MacAddict* magazine, 150 North Hill Drive, Brisbane, CA 94005.
Send email entries to contest@macaddict.com, subject: Belkin Contest.
Deadline for entry: February 29, 2004.
Contest results will appear in our Jun/04 issue.

Contest Rules

The judges will be *MacAddict* editors and will base their decision on 33 percent humor, 33 percent originality, and 33 percent creativity. All entries must be received no later than February 29, 2004, with the winner announced around June 2004. By entering this contest, you agree that Future Network USA may use your name, likeness, and Web site for promotional purposes without further payment. All prizes will be awarded and no minimum number of entries is required. Prizes won by minors will be awarded to their parents or legal guardians. Future Network USA is not responsible for damages or expenses the winners might incur as a result of this contest or the receipt of a prize, and winners are responsible for income taxes based on the value of the prize received. A list of winners may also be obtained by sending a stamped, self-addressed envelope to Future Network USA c/o *MacAddict* Contest, 150 North Hill Dr., Brisbane, CA 94005. This contest is limited to residents of the United States. No purchase necessary, void in Arizona, Maryland, Vermont, Puerto Rico, and where prohibited by law.

CONTEST

WINNER!

Congratulations to **Stephen Kramer**, whose caption for this picture won him a Digidesign Mbox ($495, www.digidesign.com) and an autographed copy of the latest Plasktikman (aka DJ Richie Hawtin) CD, *Closer*.

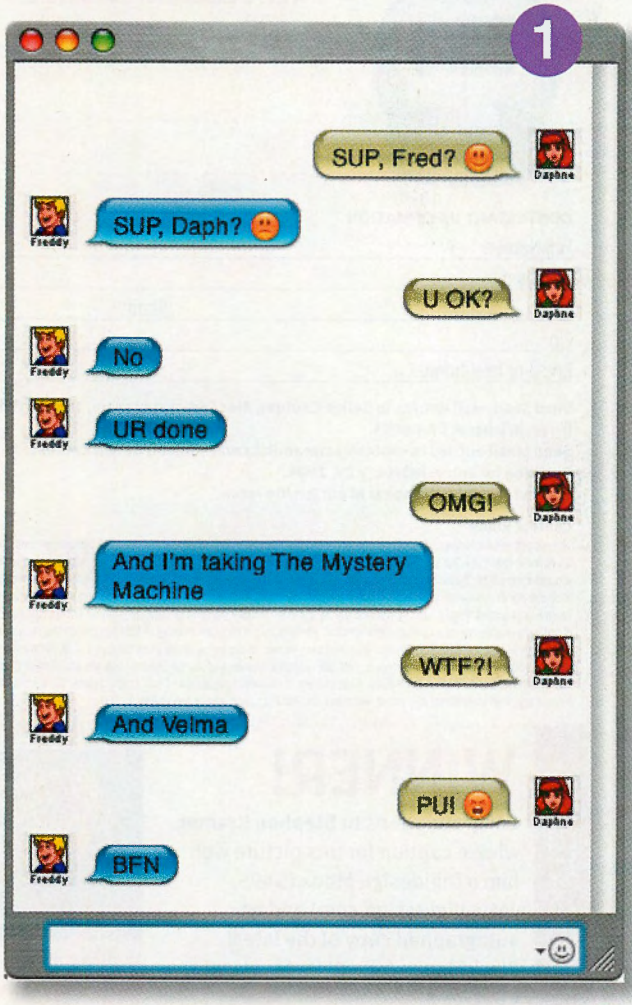
It slices and dices and makes Pentium fries.

TOP AND BOTTOM PHOTOGRAPHS BY MARK MADEO

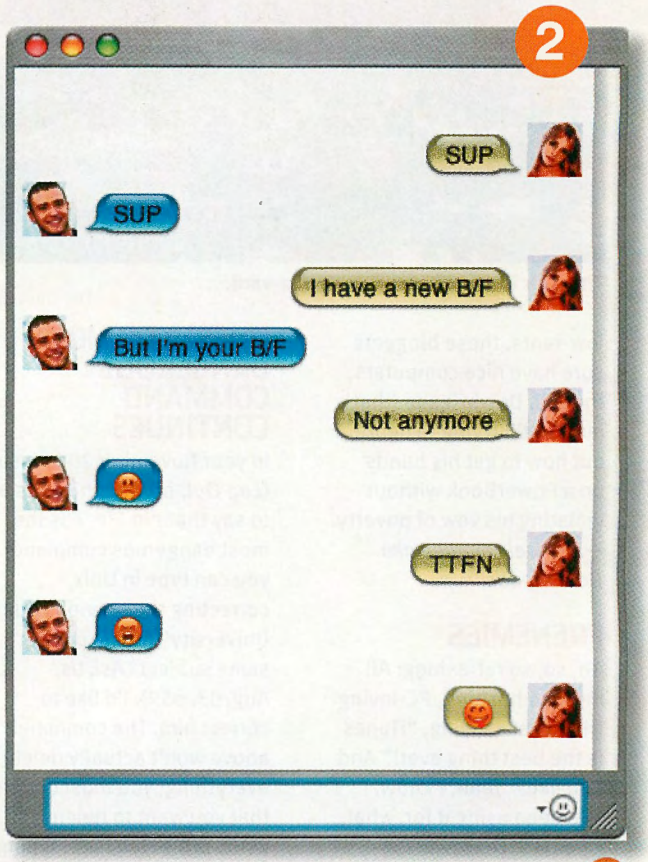
Breaking Up Is Not Hard to Do!

iChat Makes it Easy

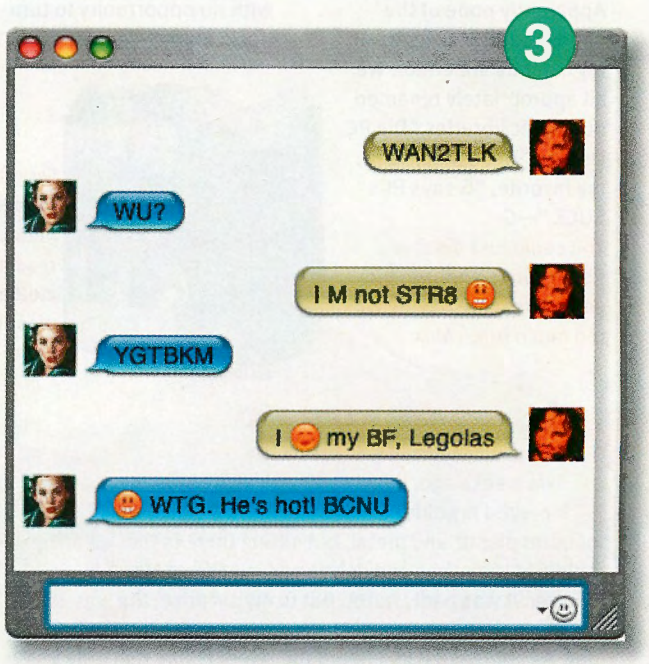
Maybe the gal you thought was attractive by the light and liquor of an Irish Pub looks like a 50-year-old farm hand in the morning. Perhaps the athletic type downstairs suddenly adopted a sardine-and-onion–only diet. Or maybe your Hello Kitty collection connection just isn't enough to sustain your relationship anymore. iChat is here to help you untie the ties that bind—with ease.



1 SUP = What's up?, R U = Are you, UR = You're, OMG = Oh my god, WTF = What the..., PU = You stink, BFN = Bye for now

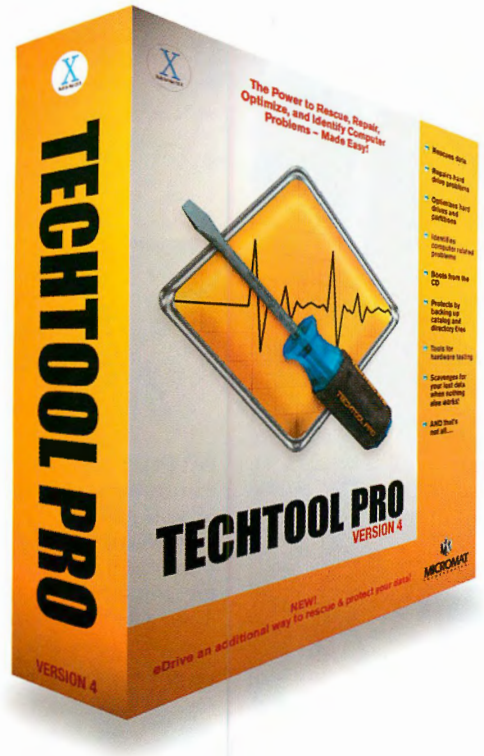


2 SUP = What's up?, B/F = Boyfriend, TTFN = Ta ta for now



3 WAN2TLK = Want to talk, WU = What's up?, STR8 = Straight, YGTBKM = You've got to be kidding me, BF = Best friend, WTG = Way to go, BCNU = Be seein' you

For a long list of other common text messaging abbreviations, check out www.webopedia.com/quick_ref/textmessageabbreviations.asp.



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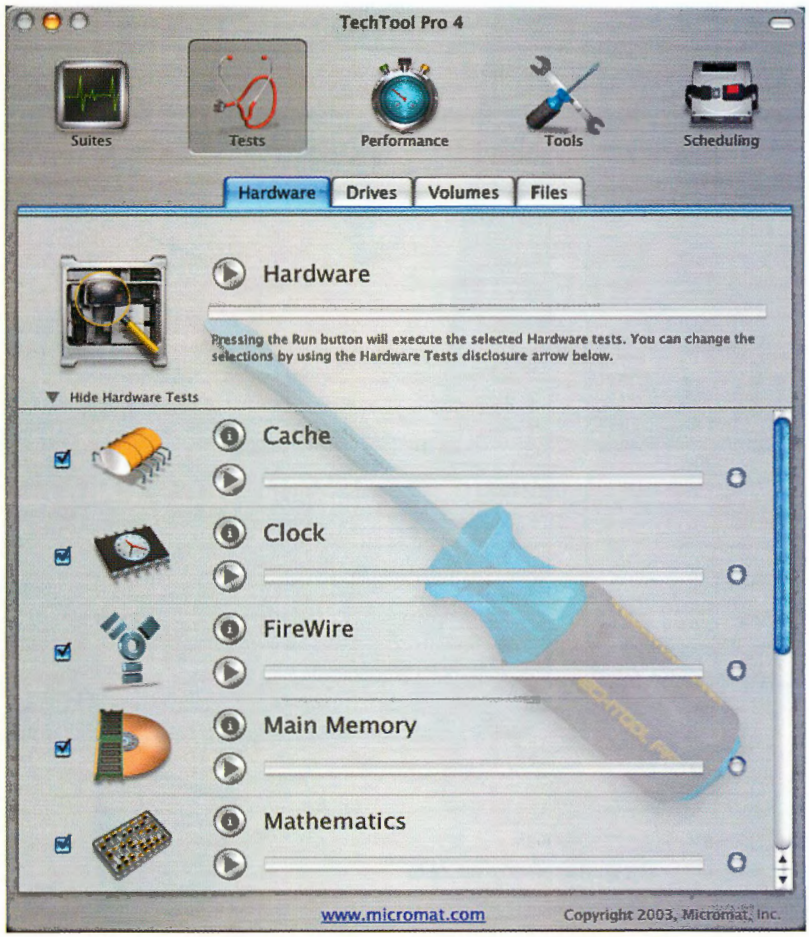

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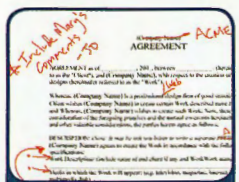
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